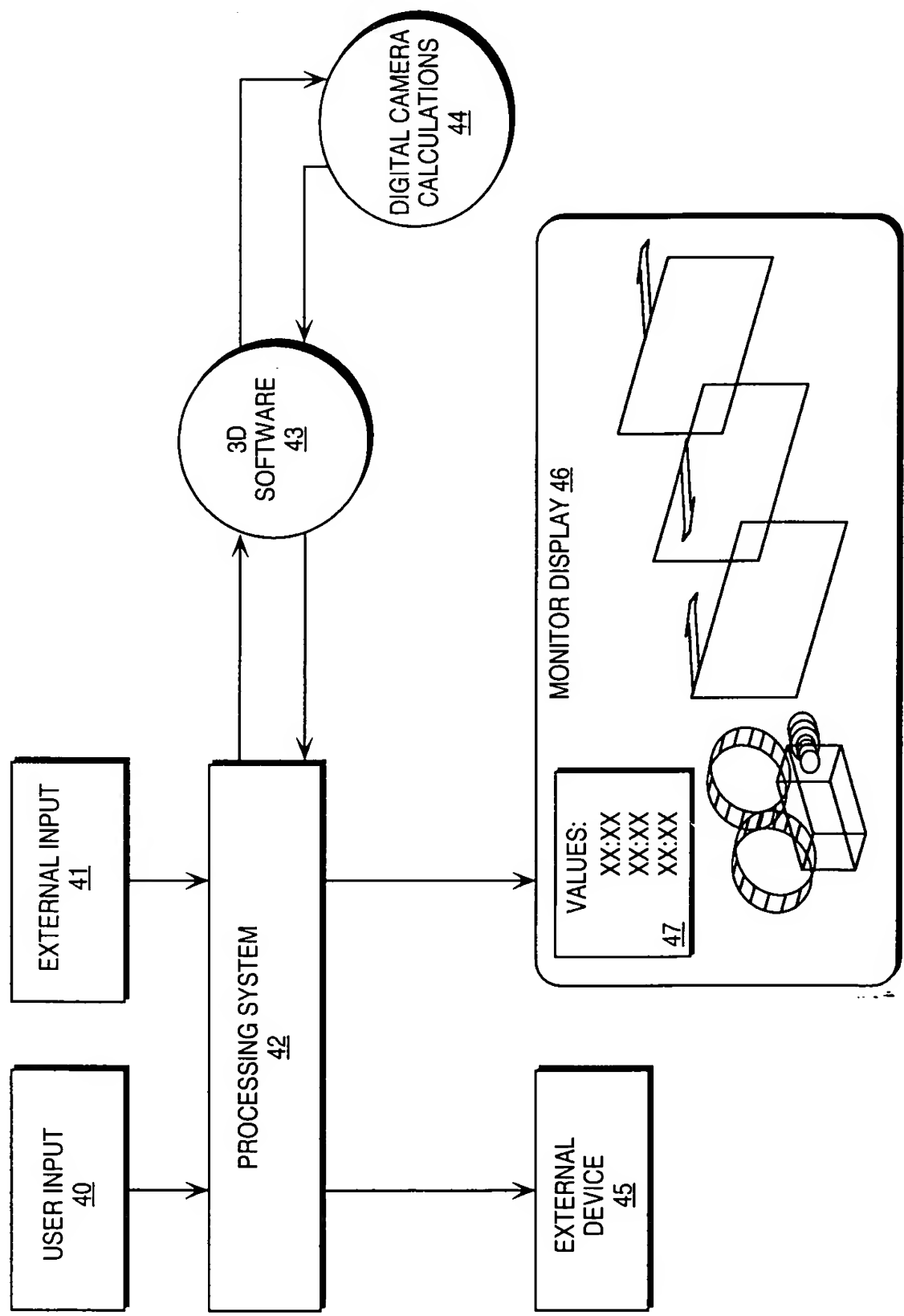
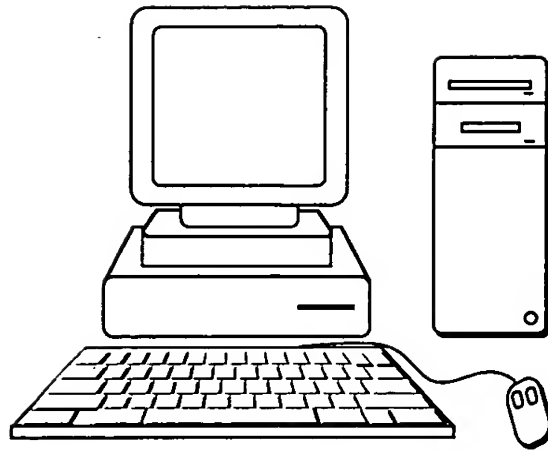


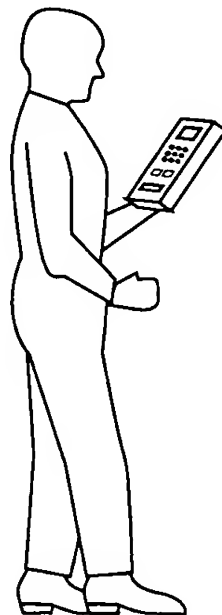
663230-223230



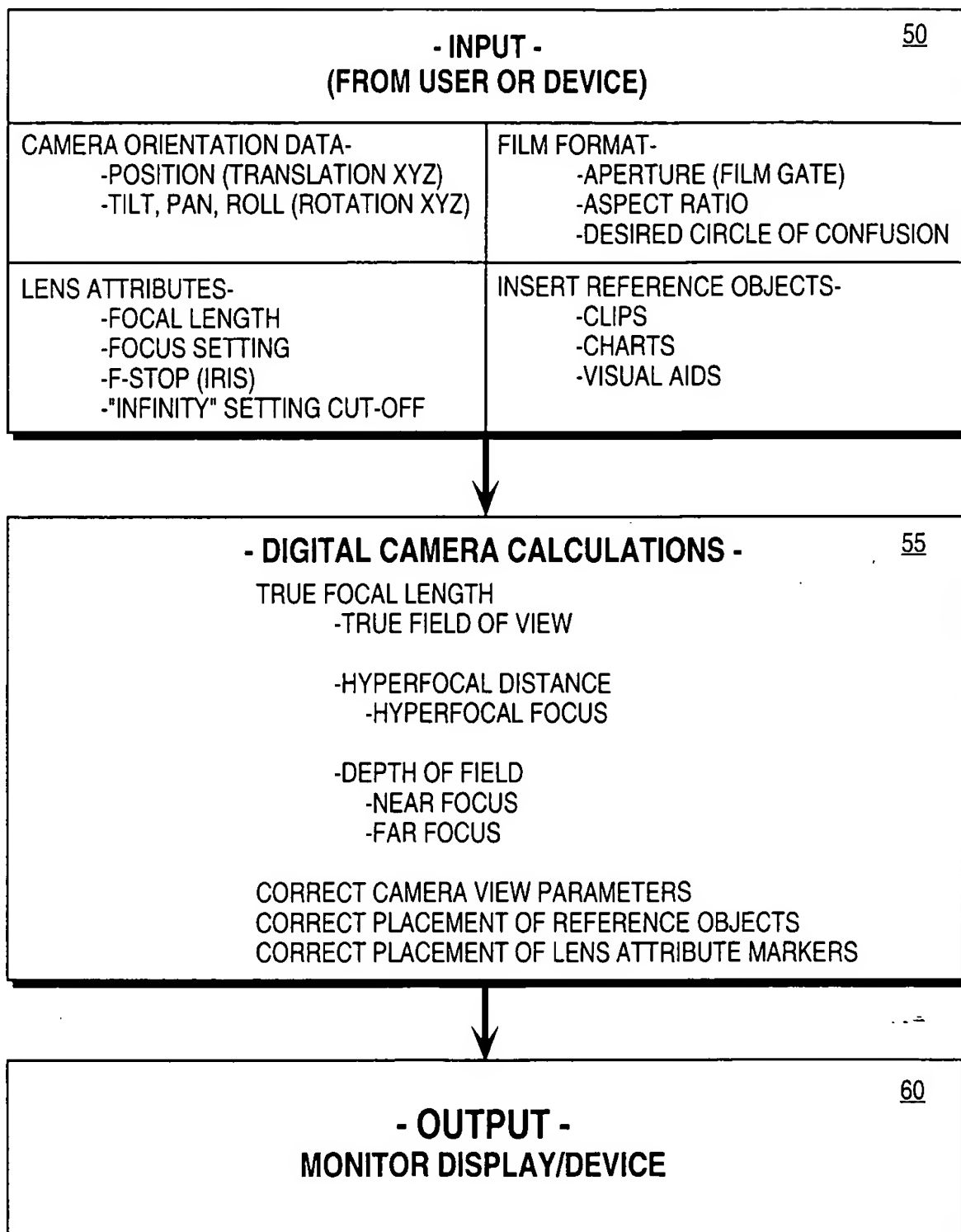
**FIG. 1a**



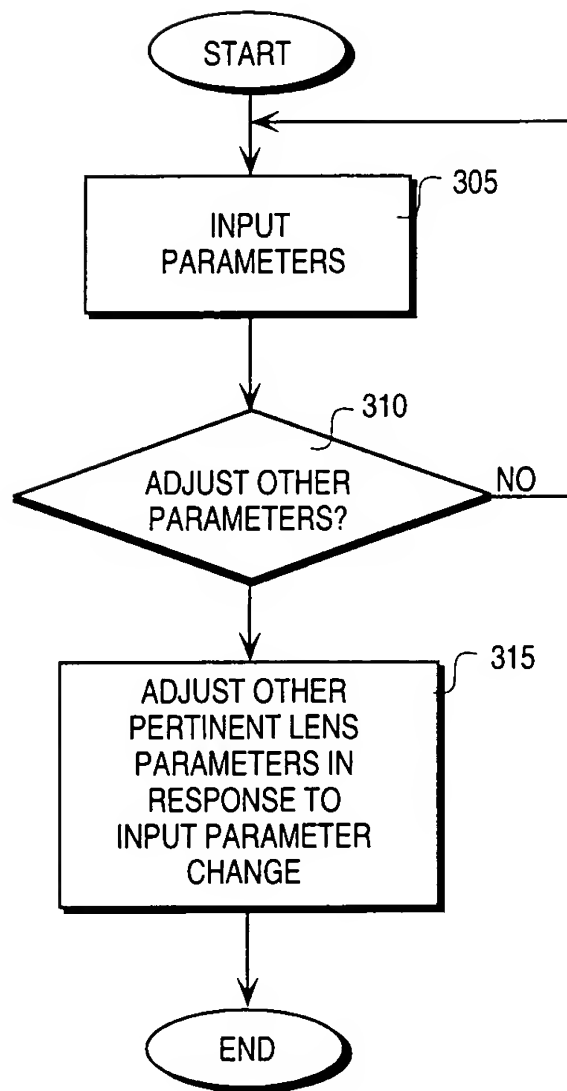
**FIG. 1b**



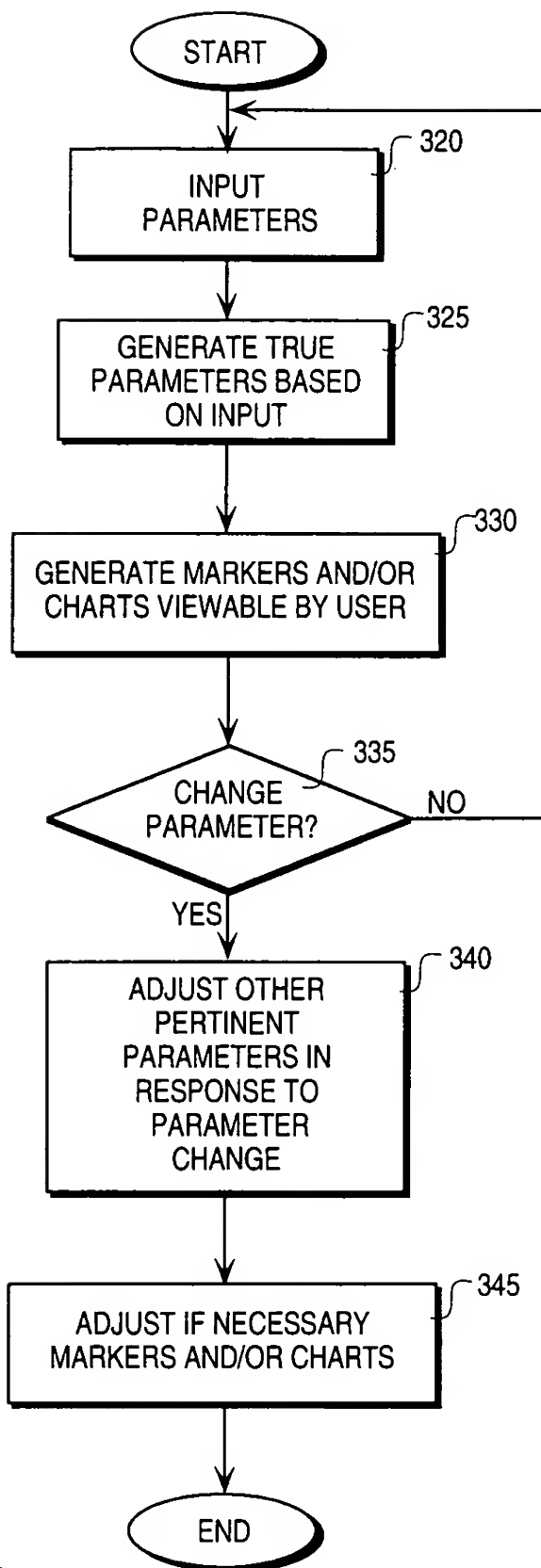
**FIG. 1c**



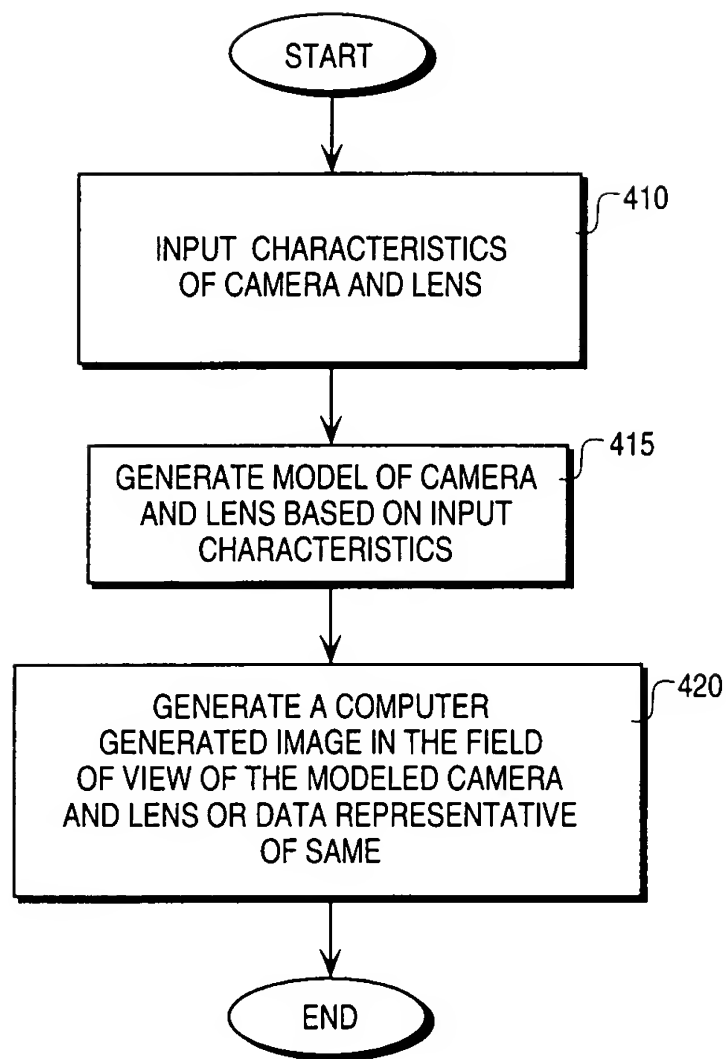
**FIG. 2**



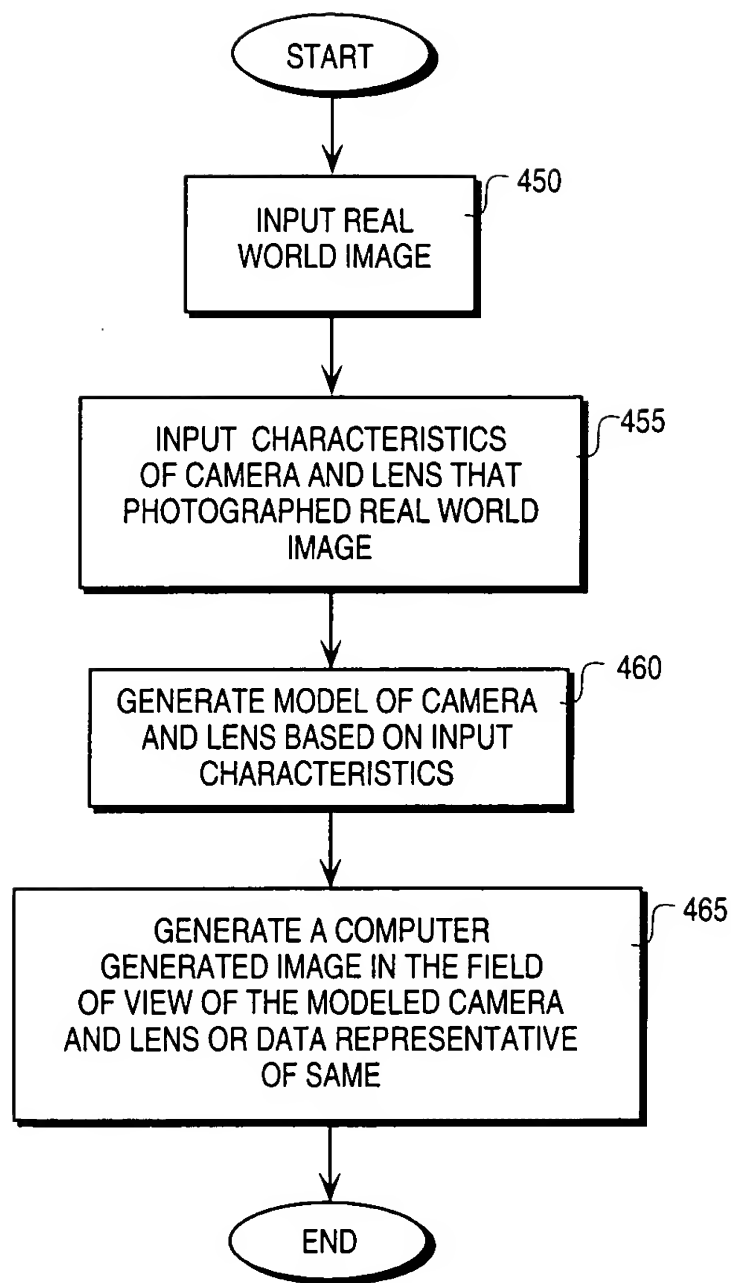
**FIG. 3a**



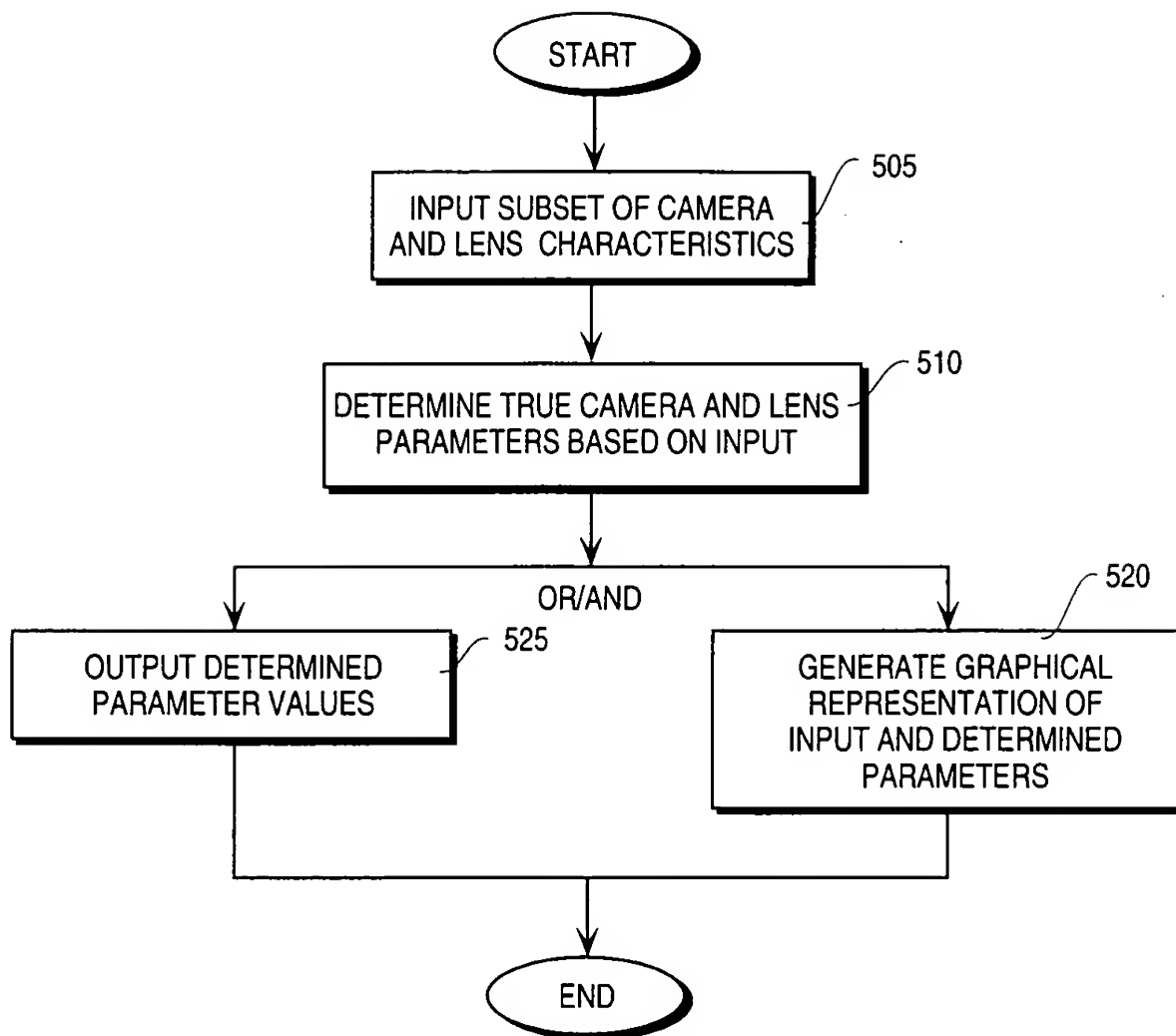
**FIG. 3b**



**FIG. 4a**



**FIG. 4b**



**FIG. 5**



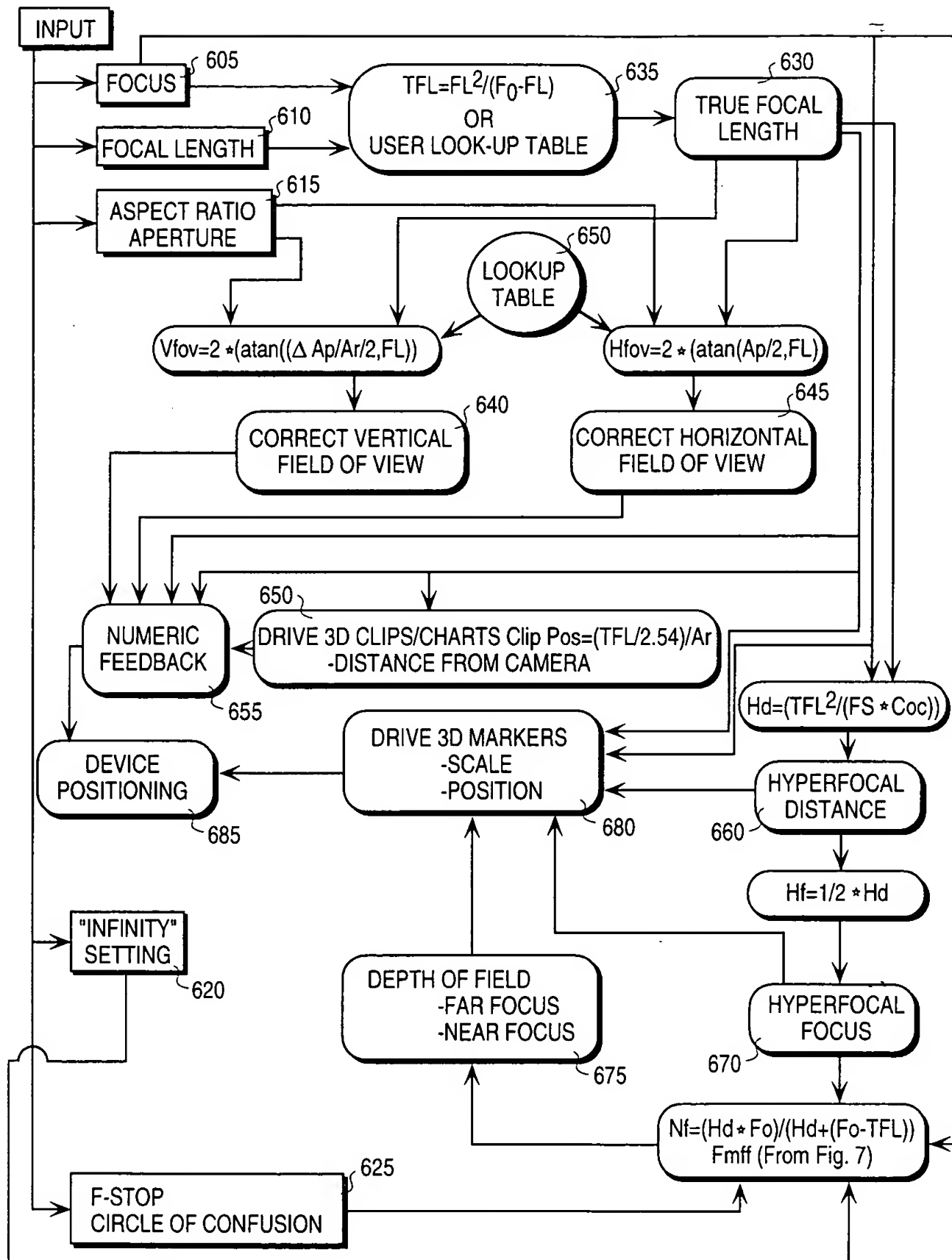
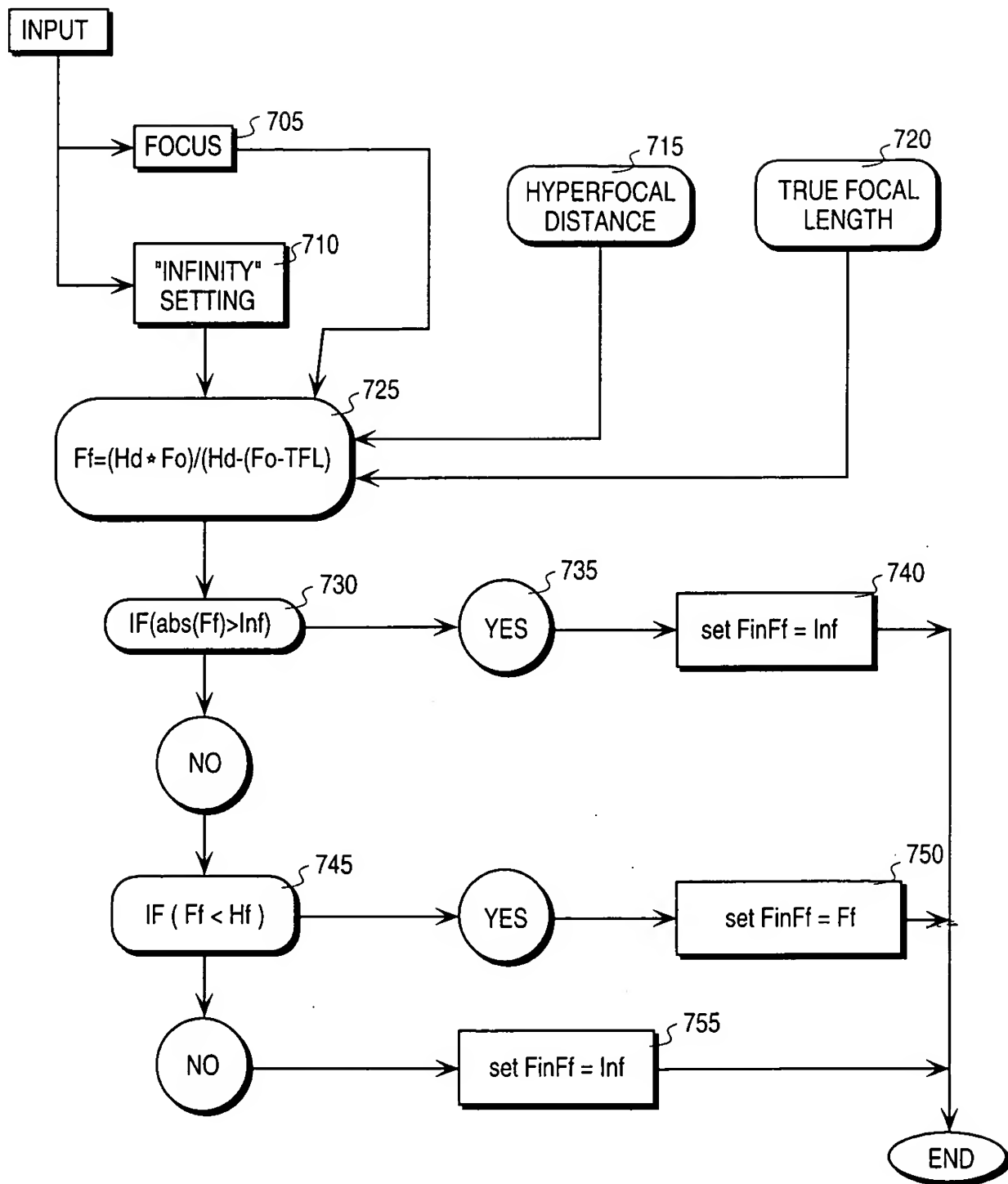


FIG. 6a

APPROVED O.G. FIG.		
BY	CLASS	SUBCLASS
GRAFTSHAN		

Variable	Name	Standard Units	Example Value
FL =	Focal Length	millimeters	50 mm
TFL =	True Focal Length	millimeters	50 mm
Ap =	Aperture	thousanth of inch	0.980"
Fs =	F-Stop	(log values)	f5.6
Coc =	Circle of Confusion	thousanth of inch	0.001"
Fo =	Focus	Feet	10'
Vfov =	Vertical Field of View	degrees	36
Hfov =	Horizontal Field of View	degrees	52
Hd =	Hyperfocal Distance	feet	50'
Hf =	Hyperfocal Focus	feet	25'
Ar =	Aspect Ratio	(ratio)	2.35
Ff =	Far Focus Value	Feet	100'
FinFf =	Final Calculated Far Focus	Feet	100'
Inf =	"Infinity" setting cut-off,	Feet	100'
Nf =	Near Focus Value	Feet	3'
Clip Pos =	Viewfinder Clips Position	Feet	0.7'

**FIG. 6b**



**FIG. 7**

56320-2332260

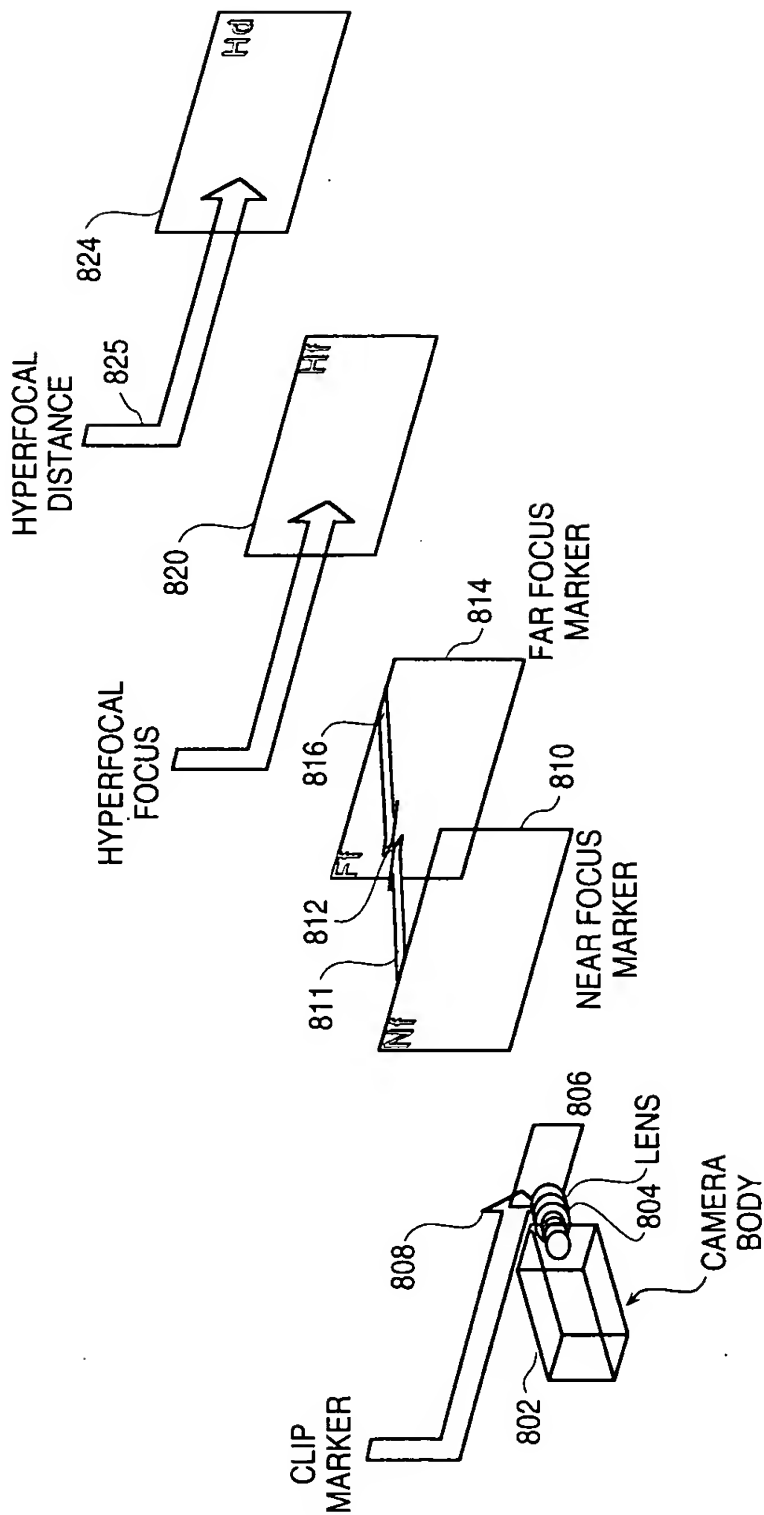


FIG. 8a

665560 2332260

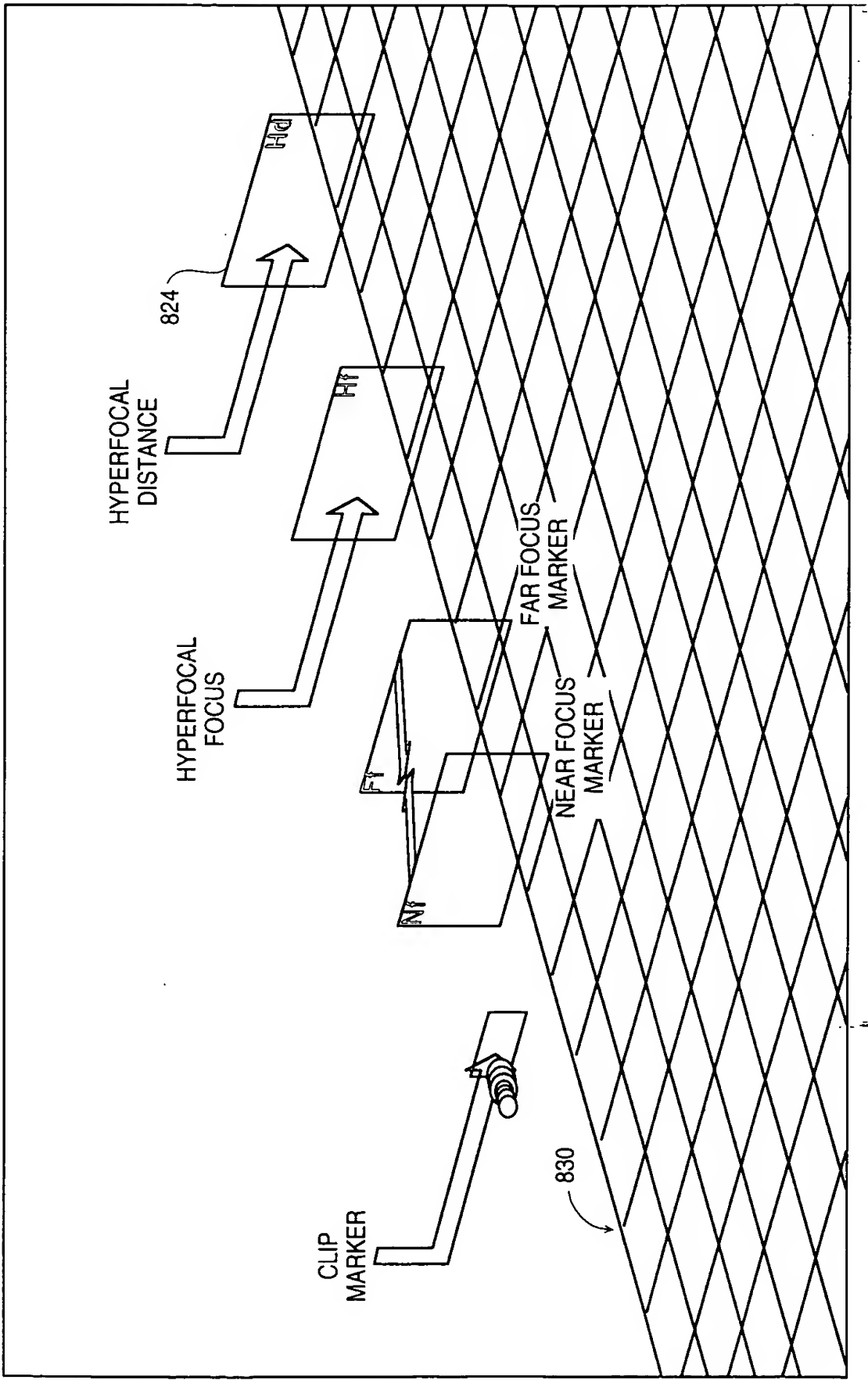


FIG. 8b

663220" 2332260

User set focal length = 19 mm  
 User set focus = 4 feet  
 User set f-stop = f2.8

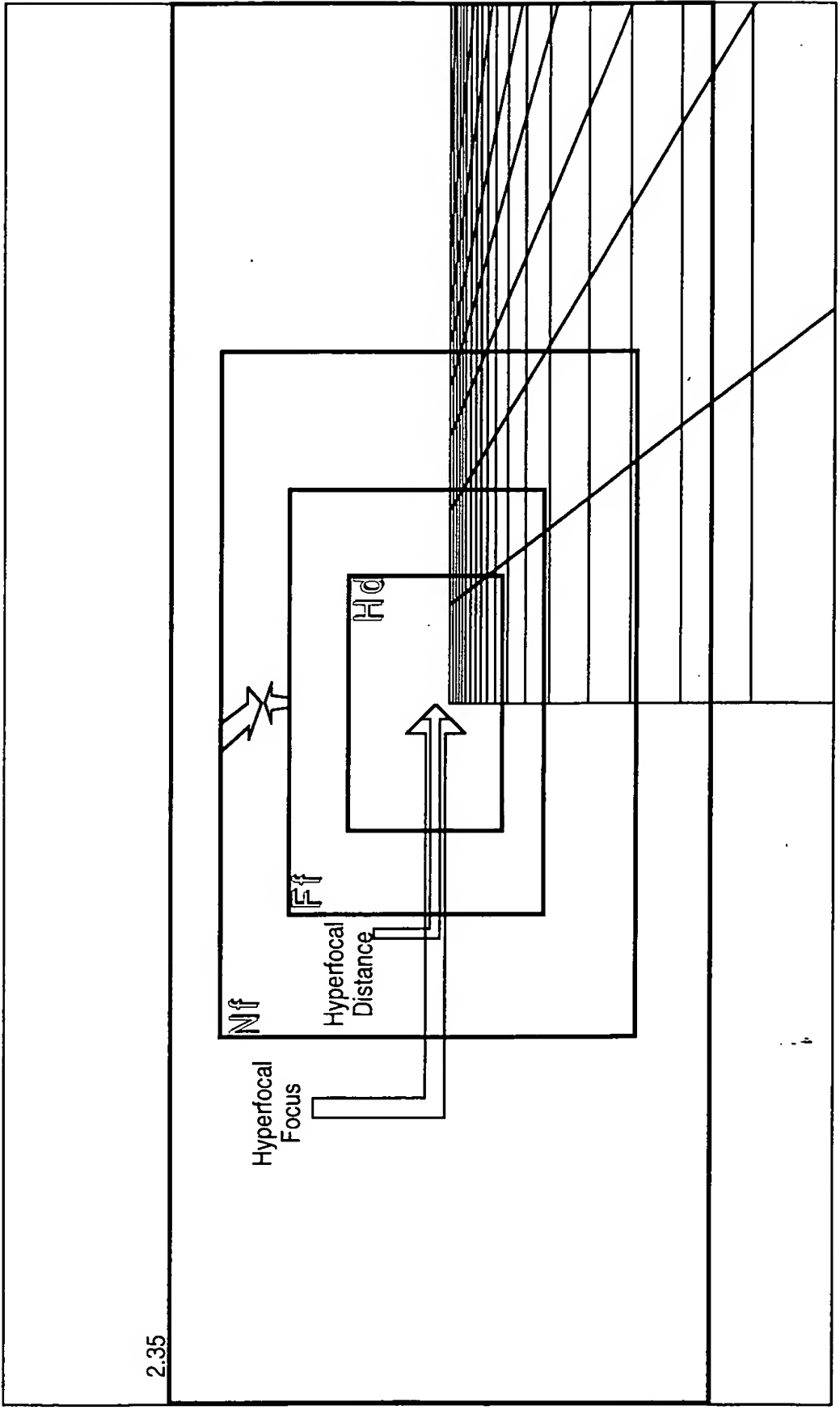


FIG. 8c

665220" 2332260

APPROVED	U.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

User set Focal Length = 19 mm	Calculated Hyperfocus Distance = 17.847 feet
User set Focus = 4 feet	Calculated Hyperfocus Focus = 8.5923 feet
User Set f-stop = f2.8	
Calculated True Focal Length = 19.3008 mm	Calculated Near Focus Distance = 3.2545 feet
	Calculated Far Focus Distance = 5.1886 feet
	Reference Marker/chart Position = 0.5201 feet

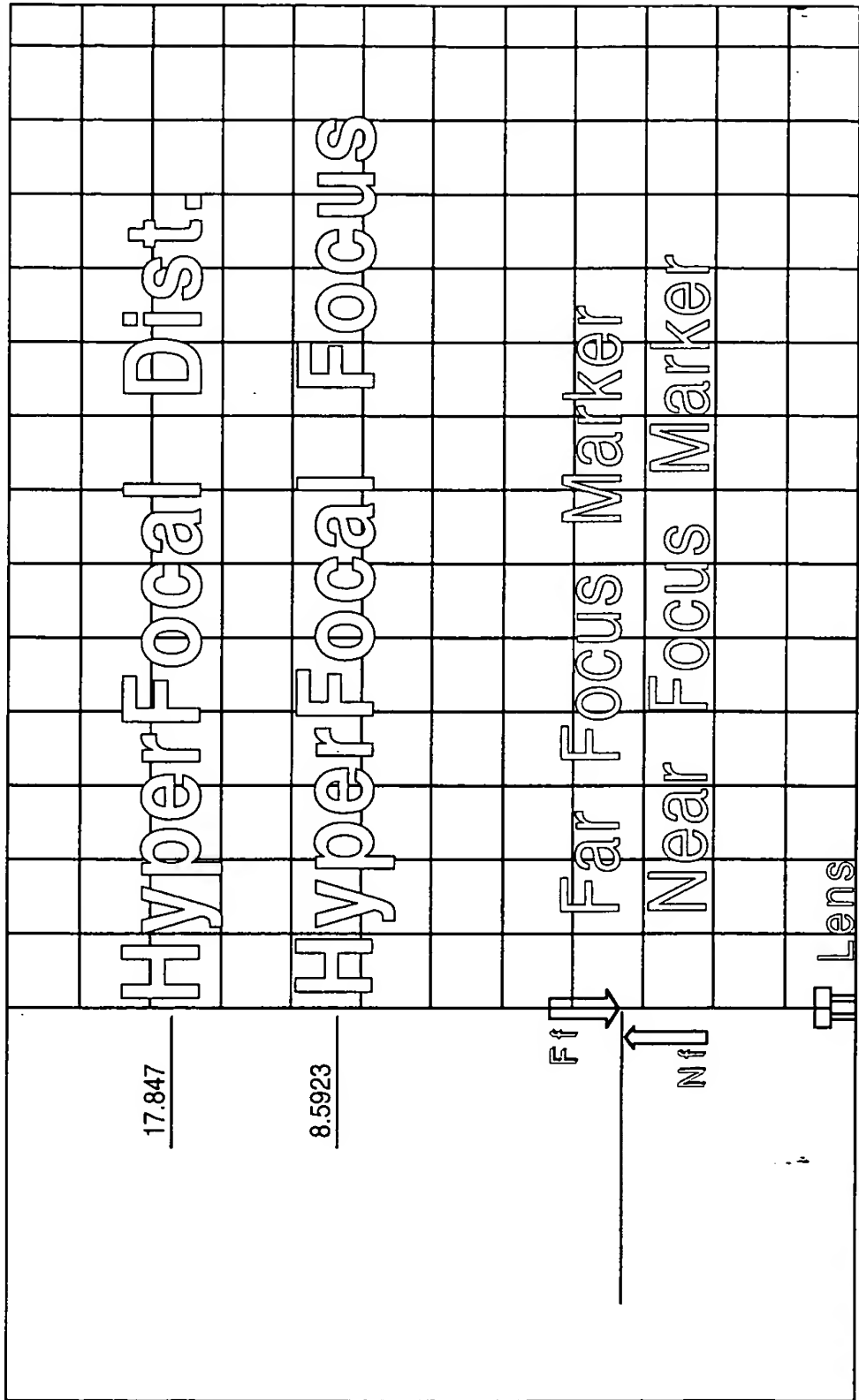


FIG. 8d

655220" 2033260

User set Focal Length = 19 mm	Calculated Hyperfocus Distance = 17.1847 feet
User set Focus = 4 feet	Calculated Hyperfocus Focus = 8.5923 feet
User Set f-stop = f2.8	
Calculated True Focal Length = 19.3008 mm	Calculated Near Focus Distance = 3.2545 feet
	Calculated Far Focus Distance = 5.1886 feet
	Reference Marker/chart Position = 0.5201 feet

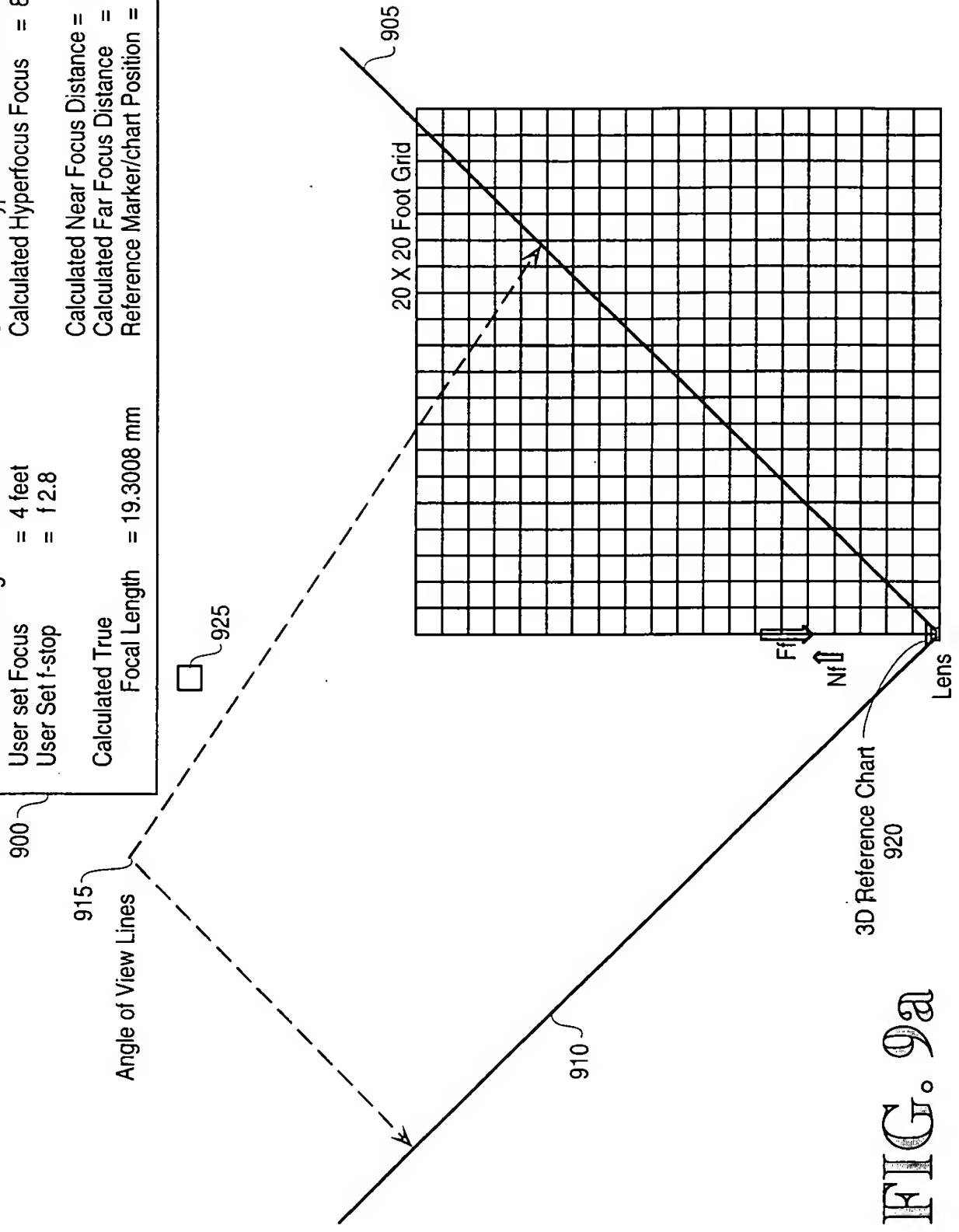


FIG. 9a



66320 233/260

User set Focal Length = 19 mm User set Focus = 4 feet User Set f-stop = f2.8	Calculated Hyperfocus Distance = 17.1847 feet Calculated Hyperfocus Focus = 8.5923 feet
Calculated True Focal Length = 19.3008 mm	Calculated Near Focus Distance = 3.2545 feet Calculated Far Focus Distance = 5.1886 feet Reference Marker/chart Position = 0.5201 feet

901

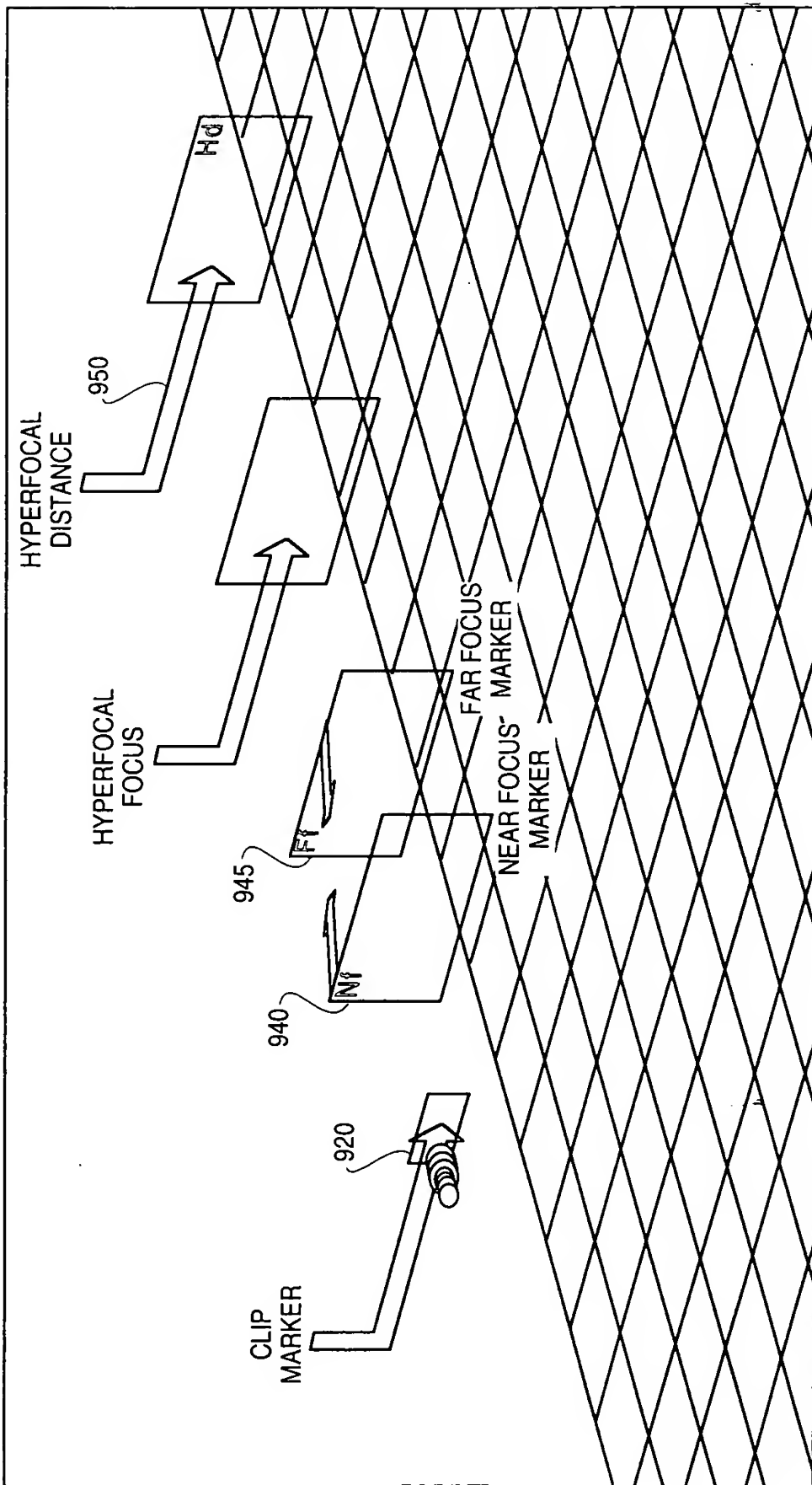


FIG. 9b

66330-00000000

User set focal length = 19 mm  
 User set focus = 4 feet  
 User set f-stop = f2.8

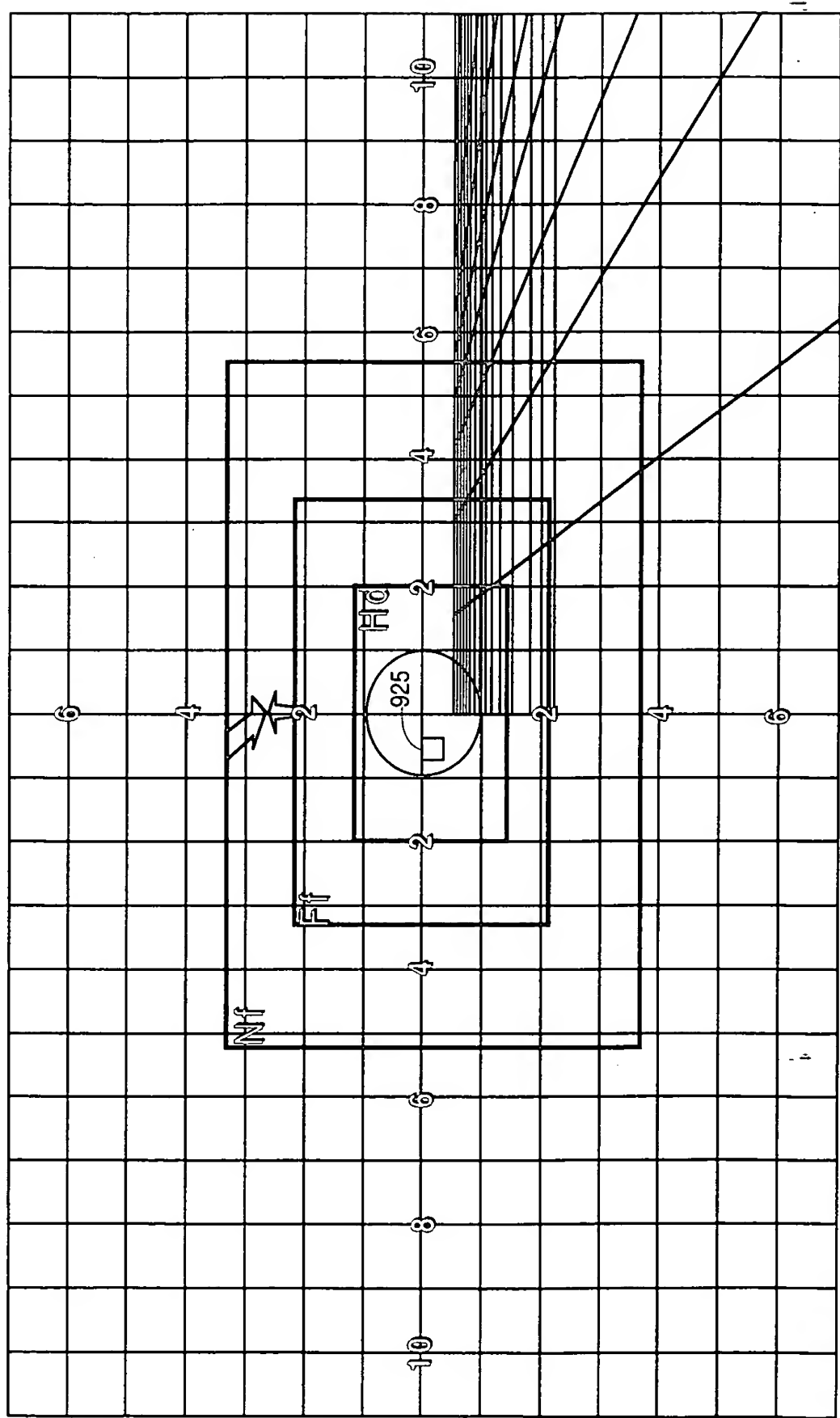
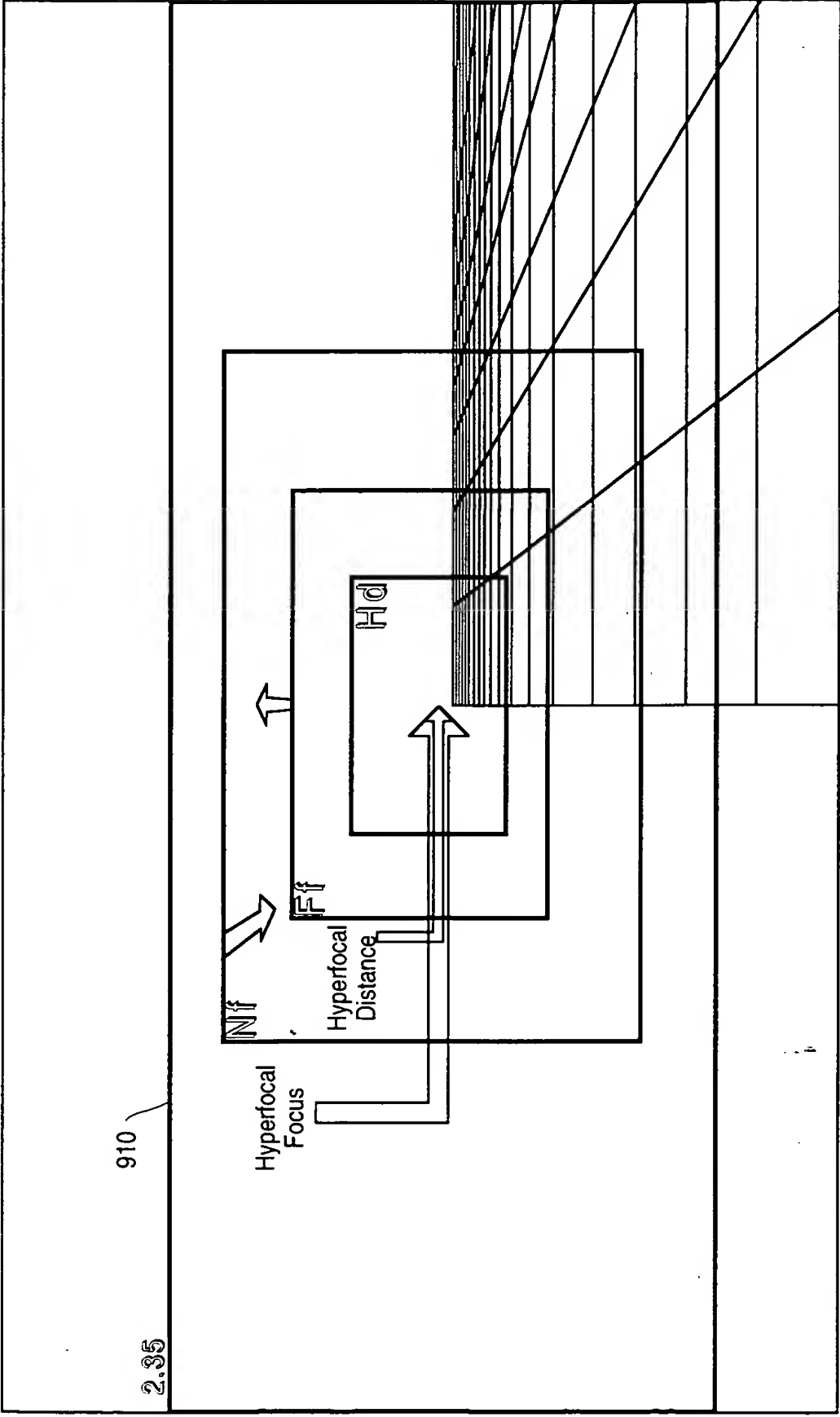


FIG. 9c

663320" 66332260

User set focal length	=	19 mm
User set focus	=	4 feet
User set f-stop	=	f 2.8



**FIG. 9d**

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
CRAFTSMAN		

663220" 2333/260

User set Focal Length	= 19 mm	Calculated Hyperfocus Distance	= 8.5923 feet
User set Focus	= 4 feet	Calculated Hyperfocus Focus	= 4.2962 feet
User Set f-stop	= f 5.6		
Calculated True Focal Length	= 19.3008 mm	Calculated Near Focus Distance	= 2.7432 feet
		Calculated Far Focus Distance	= 7.3823 feet
		Reference Marker/chart Position	= 0.5201 feet

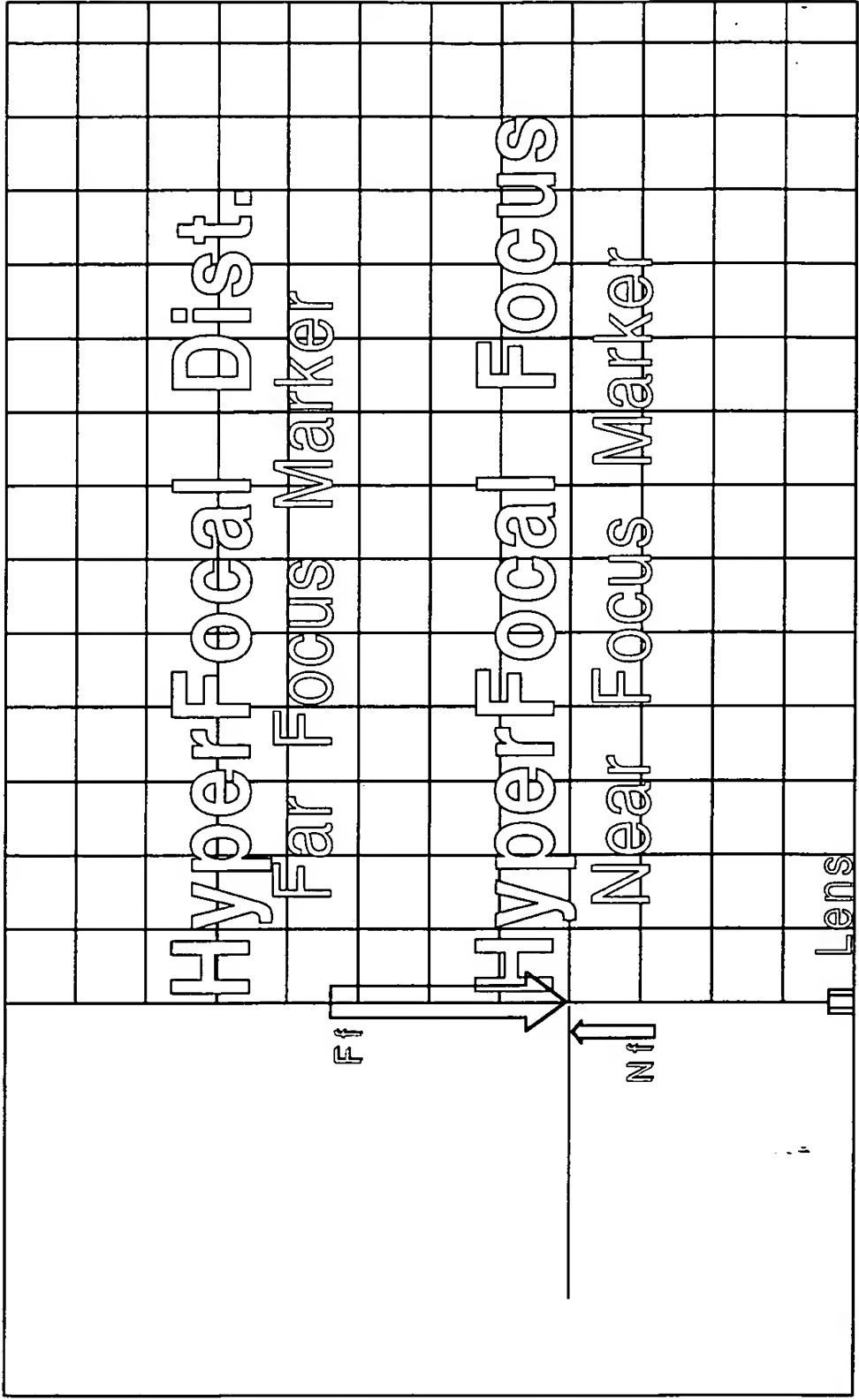


FIG. 10a

APPROVED: O.G. FIG.

BY CLASS SUBCLASSE  
DRAFTSMAN

66320" 2332260

User set Focal Length	= 19 mm	Calculated Hyperfocus Distance	= 8.5923 feet
User set Focus	= 4 feet	Calculated Hyperfocus Focus	= 4.2962 feet
User Set f-stop	= f 5.6		
Calculated True		Calculated Near Focus Distance	= 2.7432 feet
Focal Length	= 19.3008 mm	Calculated Far Focus Distance	= 7.3823 feet
		Reference Marker/chart Position	= 0.5201 feet

HYPERFOCAL  
DISTANCE

HYPERFOCAL  
FOCUS

CLIP  
MARKER

FAR FOCUS  
MARKER

NEAR FOCUS  
MARKER

FIG. 10b

663220 2332260

User set focal length	= 19 mm
User set focus	= 4 feet
User set f-stop	= f 5.6

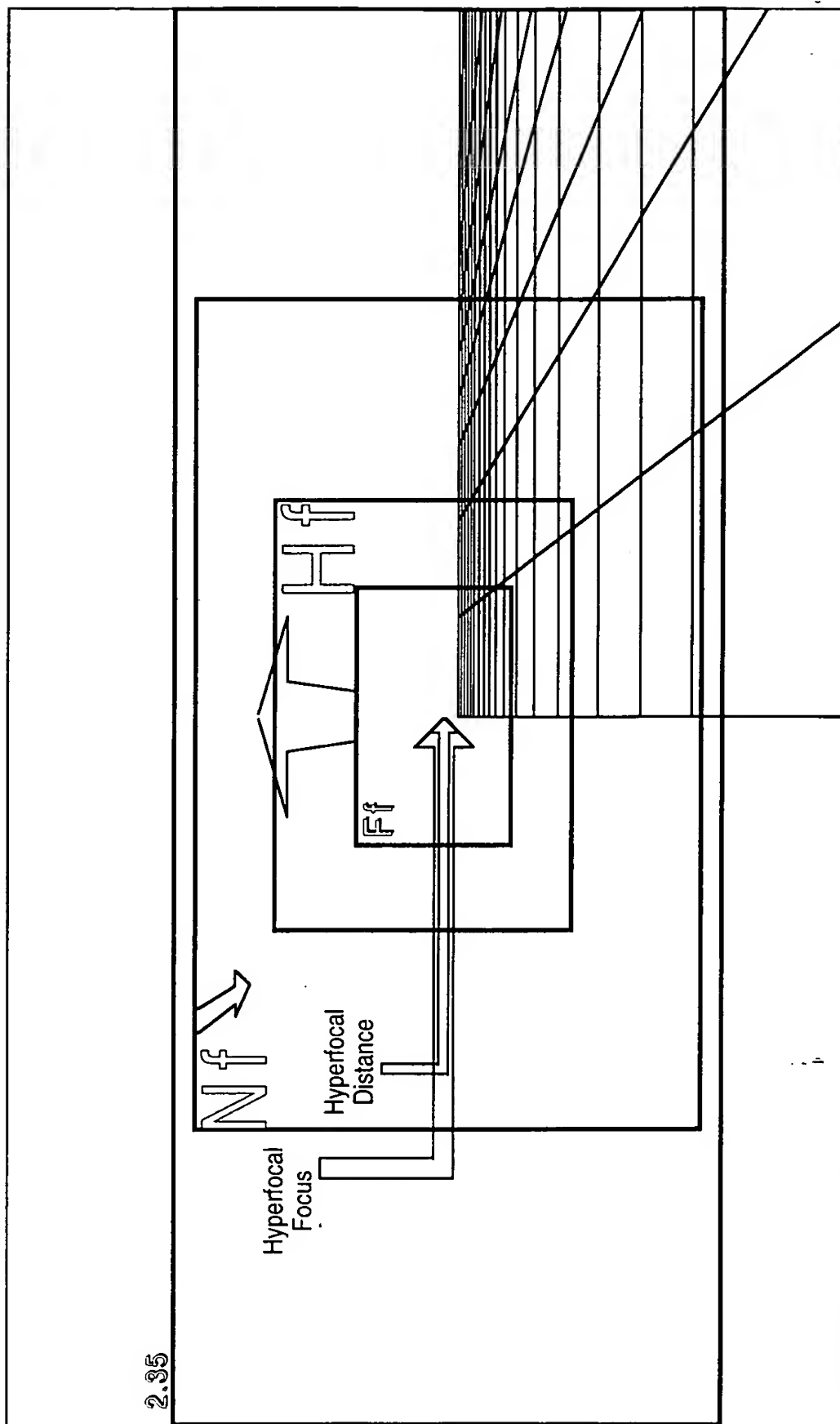


FIG. 10c

663220 2003/2/50

User set Focal Length = 19 mm	Calculated Hyperfocus Distance = 16.8628 feet
User set Focus = 10 feet	Calculated Hyperfocus Focus = 8.4314 feet
User Set f-stop = f 2.8	
Calculated True Focal Length = 19.1192 mm	Calculated Near Focus Distance = 6.2921 feet
	Calculated Far Focus Distance = 24.3487 feet
	Reference Marker/chart Position = 0.5152 feet

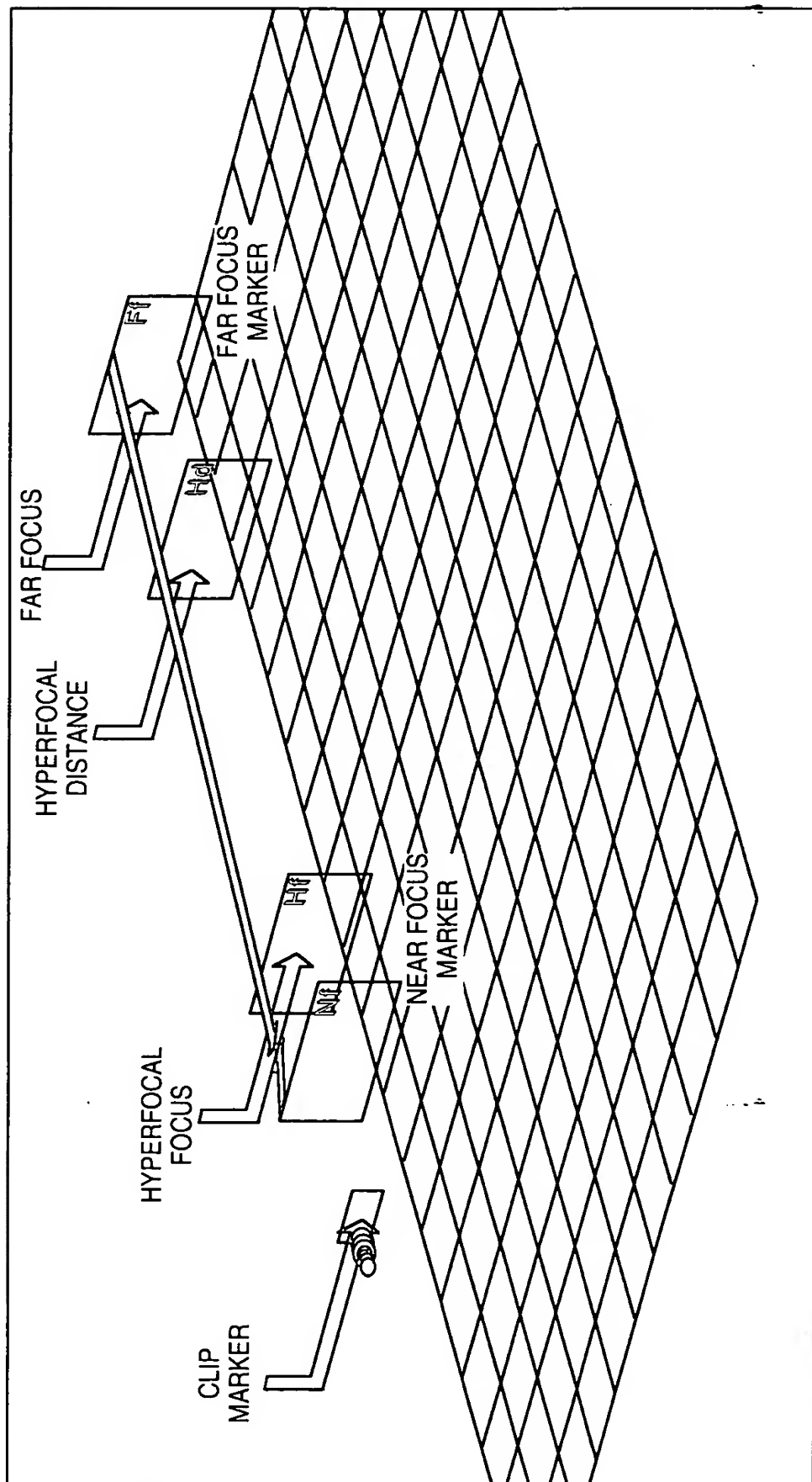


FIG. 11a

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

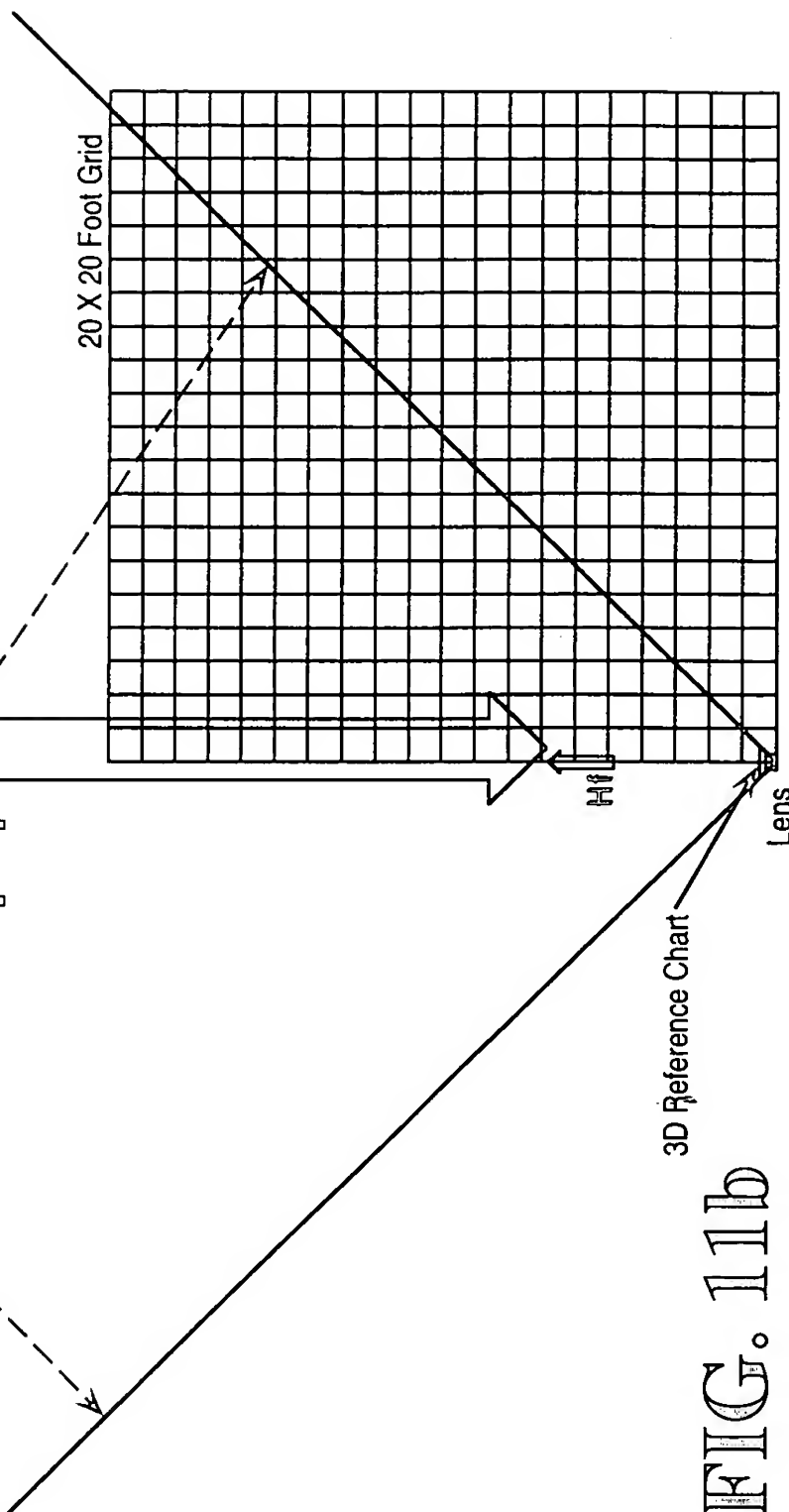
66930-200000

User set Focal Length = 19 mm	Calculated Hyperfocus Distance = 16.8628 feet
User set Focus = 10 feet	Calculated Hyperfocus Focus = 8.4314 feet
User Set f-stop = f 2.8	
Calculated True Focal Length = 19.1192 mm	Calculated Near Focus Distance = 6.2921 feet
	Calculated Far Focus Distance = 24.3487 feet
	Reference Marker/chart Position = 0.5152 feet

☐ Fixed Cube

Angle of View Lines

Ff



3D Reference Chart

FIG. 11b



FILED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

User set focal length = 19 mm  
 User set focus = 10 feet  
 User set f-stop = f2.8

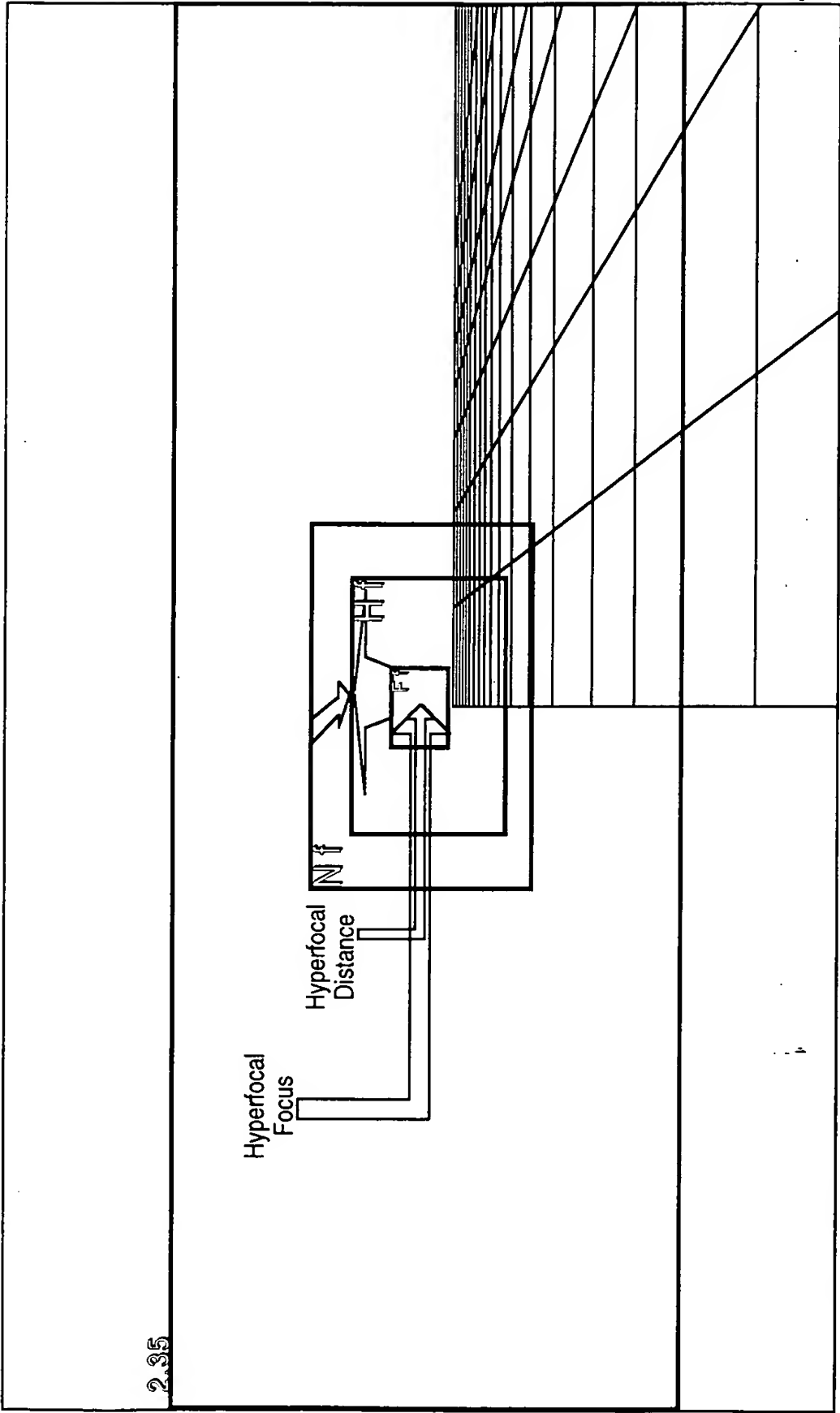


FIG. 11c

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

User set focal length = 19 mm  
 User set focus = 10 feet  
 User set f-stop = f2.8

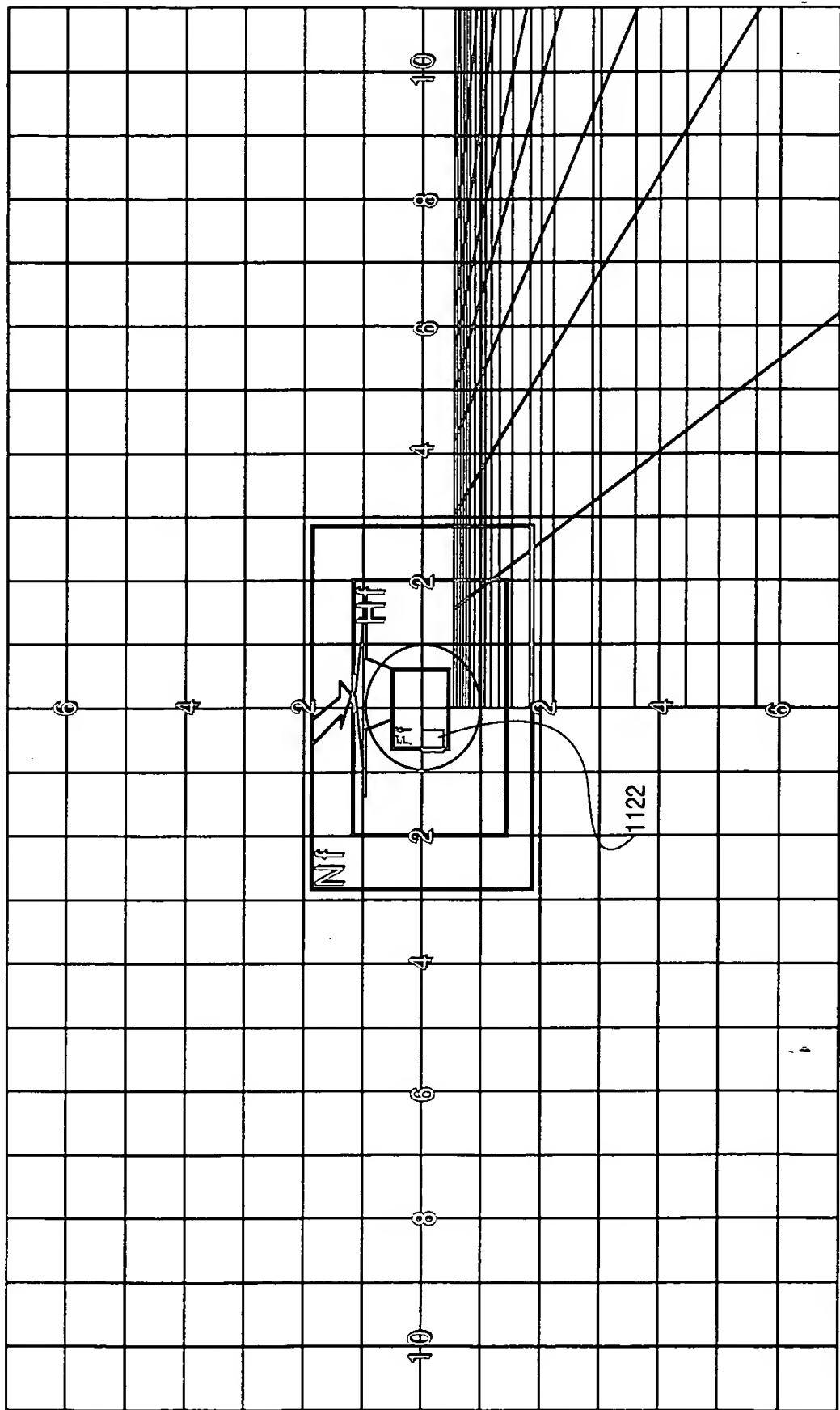


FIG. 11d

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
RAFTSMAN		

663260-2000

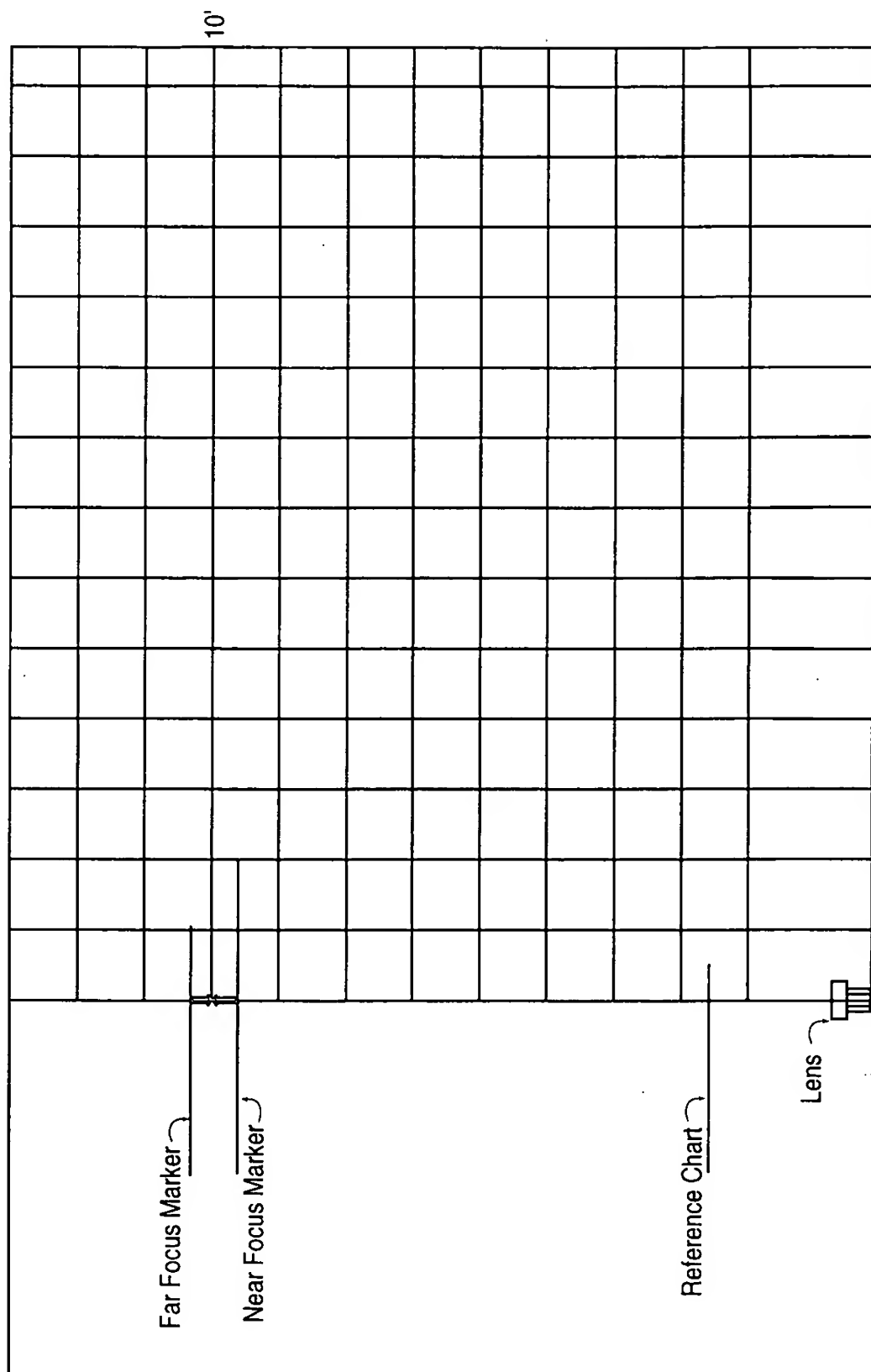


FIG. 12a

User set Focal Length = 100 mm	Calculated Hyperfocus Distance = 493.135 feet
User set Focus = 10 feet	Calculated Hyperfocus Focus = 246.567 feet
User Set f-stop = f 2.8	
Calculated True Focal Length = 103.3921 mm	Calculated Near Focus Distance = 9.8079 feet
	Calculated Far Focus Distance = 10.1998 feet
	Reference Marker/chart Position = 2.7861 feet

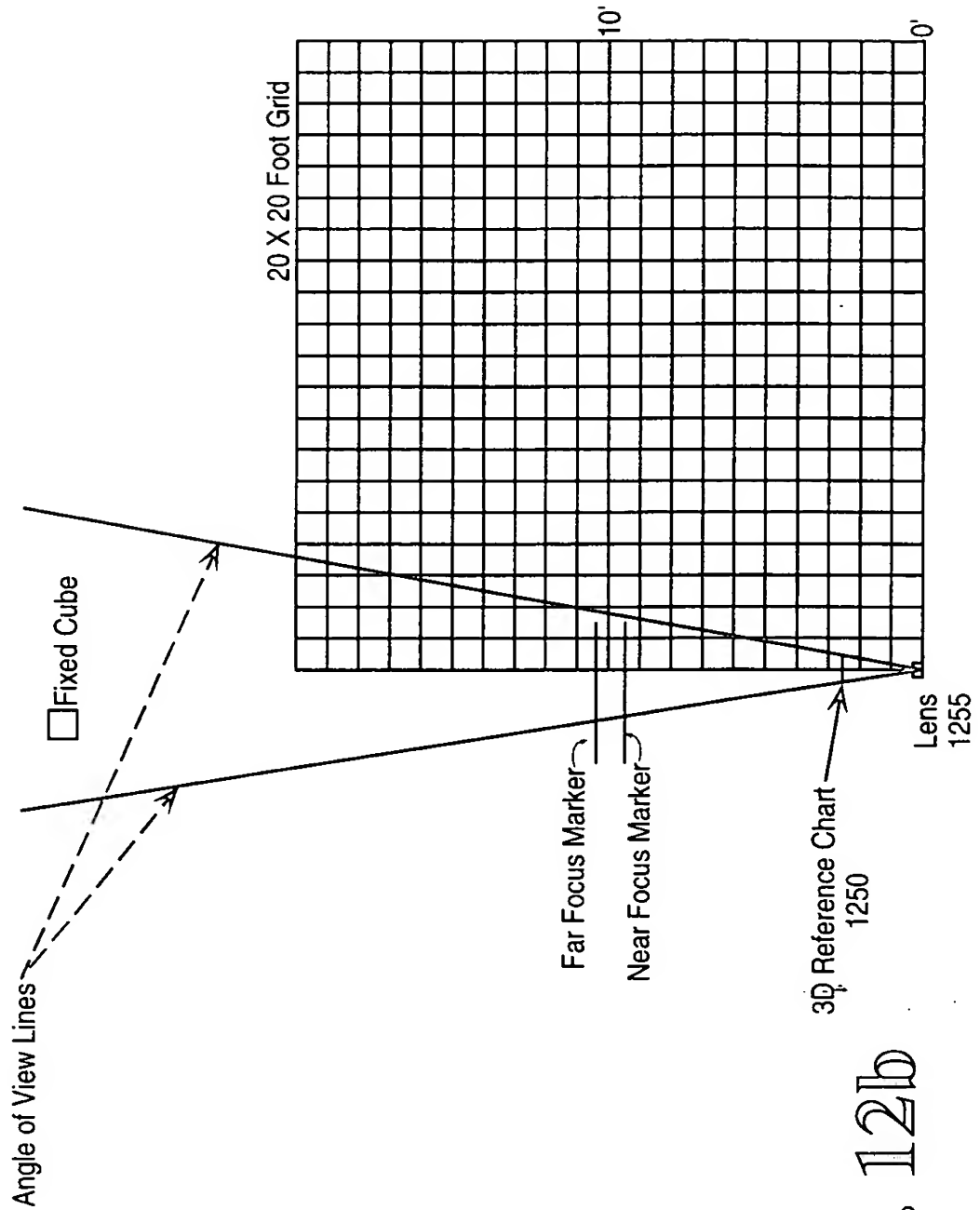


FIG. 12b

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

User set focal length = 100 mm  
 User set focus = 10 feet  
 User set f-stop = f2.8

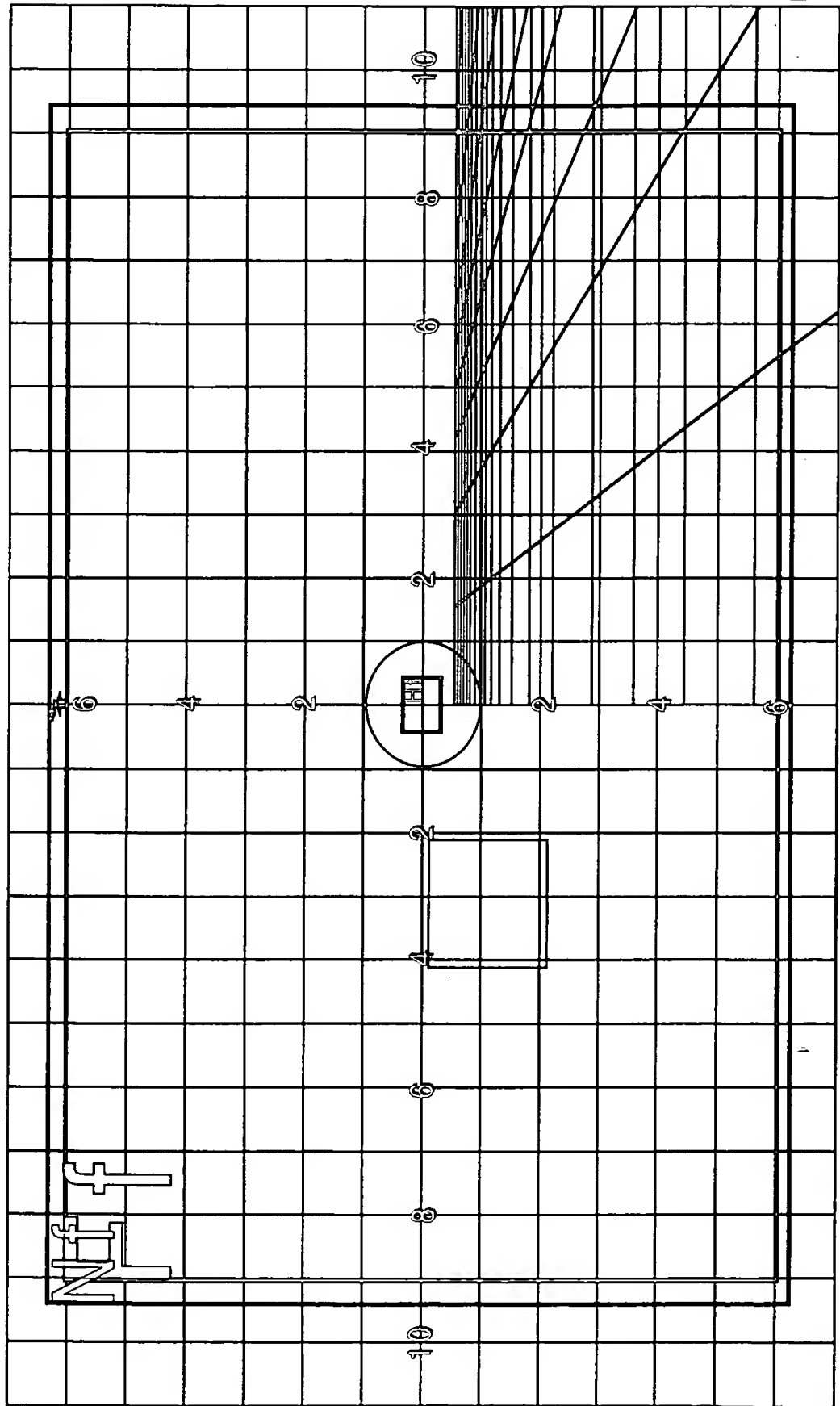


FIG. 12c

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
CRAFTSMAN		

User set Focal Length = 100 mm	Calculated Hyperfocus Distance = 476.824 feet
User set Focus = 20 feet	Calculated Hyperfocus Focus = 238.412 feet
User Set f-stop = f2.8	
Calculated True Focal Length = 101.6678 mm	Calculated Near Focus Distance = 19.2078 feet
	Calculated Far Focus Distance = 20.8604 feet
	Reference Marker/chart Position = 2.7397 feet

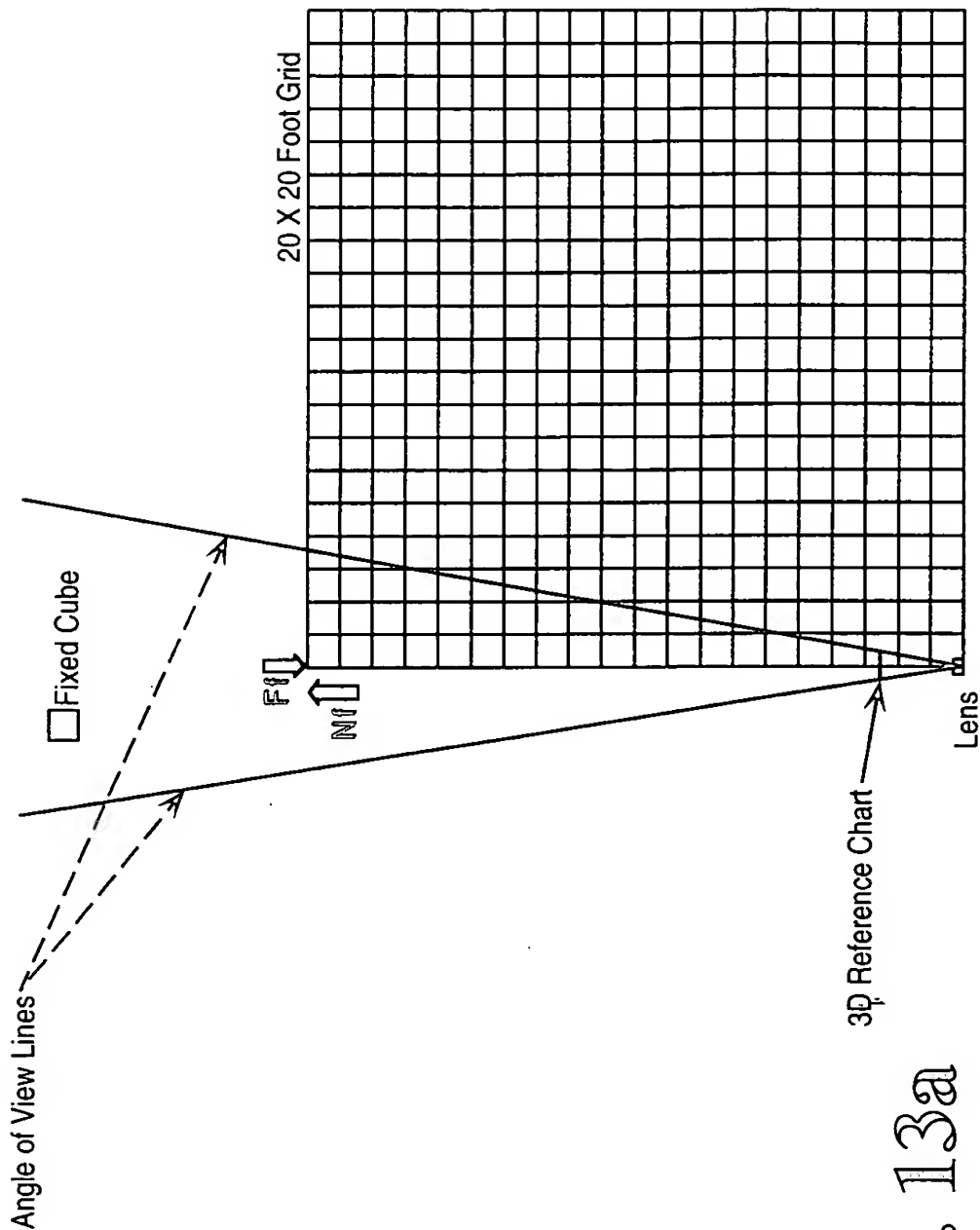


FIG. 13a

APPROVED	O.G. FIG.	
BY	CLASS	SUBCLASS
DRAFTSMAN		

User set focal length = 100 mm  
 User set focus = 20 feet  
 User set f-stop = f2.8

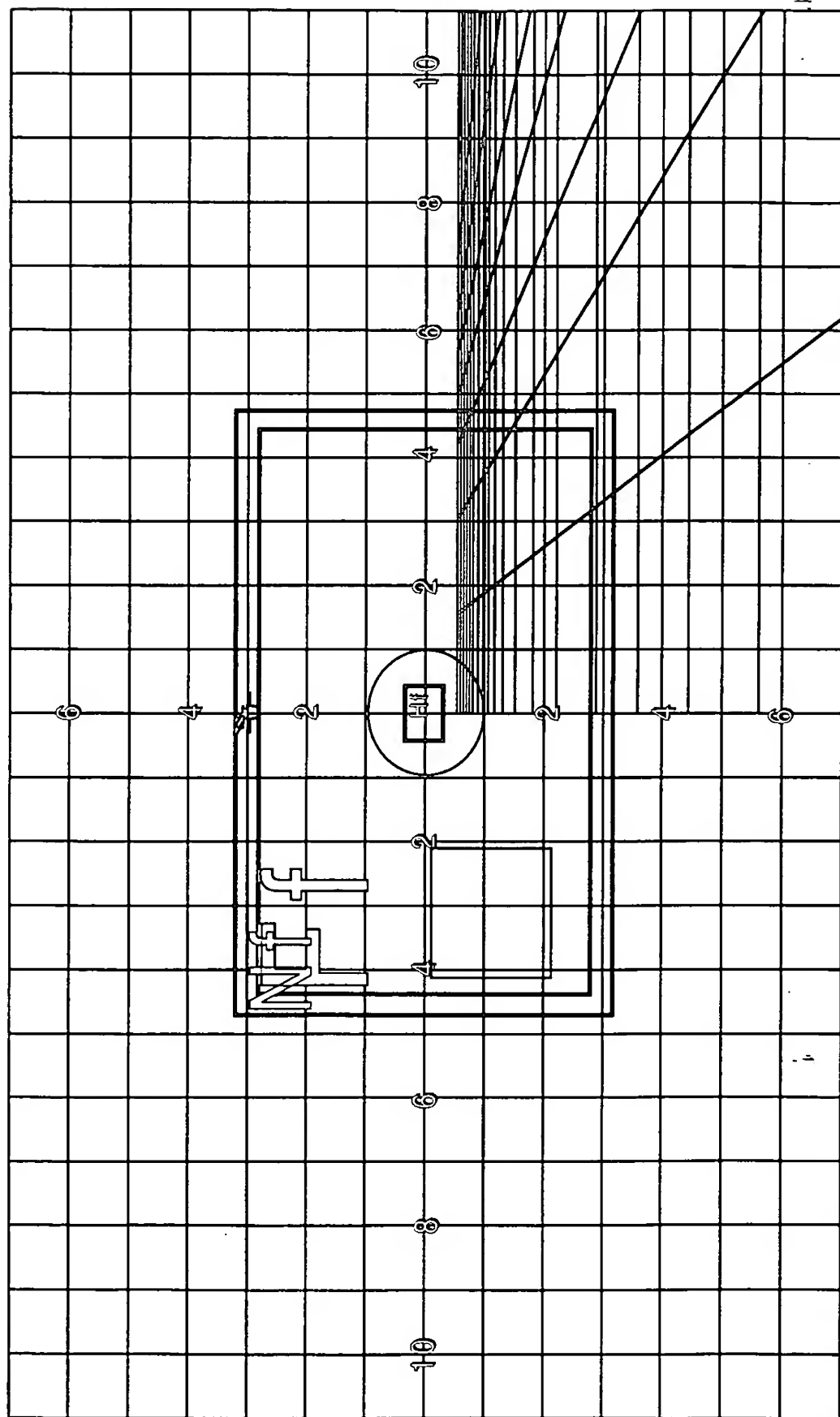


FIG. 13b

663230-2000000

User set Focal Length = 100 mm	Calculated Hyperfocus Distance = 83.4442 feet
User set Focus = 20 feet	Calculated Hyperfocus Focus = 41.7221 feet
User Set f-stop = f 16	
Calculated True Focal Length = 101.6678 mm	Calculated Near Focus Distance = 16.1854 feet
	Calculated Far Focus Distance = 26.1672 feet
	Reference Marker/chart Position = 2.7397 feet

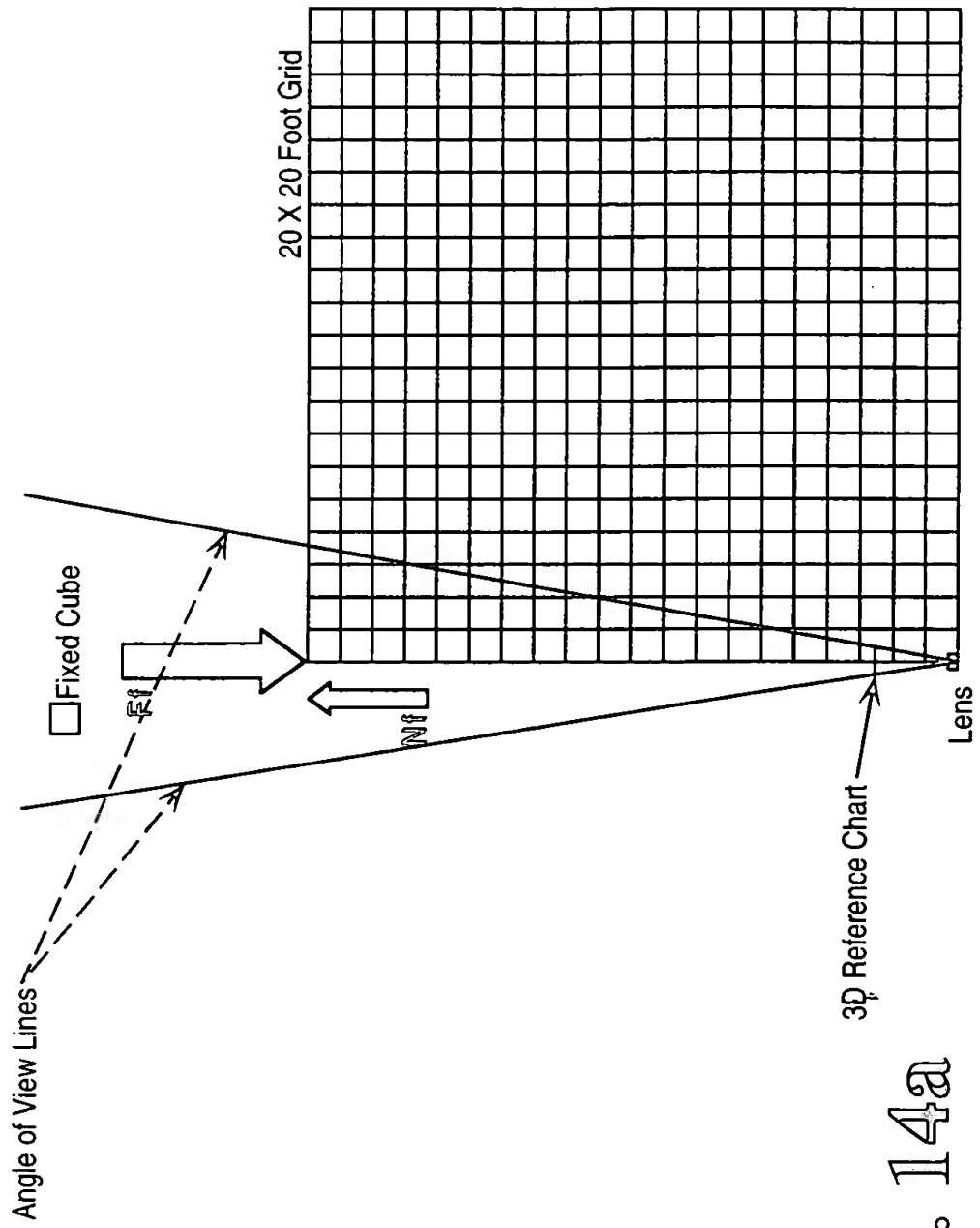


FIG. 14a



DATE:	O.G. FIG.	
BY:	CLASS	SUBCLASS
DRAFTSMAN		

User set focal length = 100 mm  
 User set focus = 20 feet  
 User set f-stop = f 16

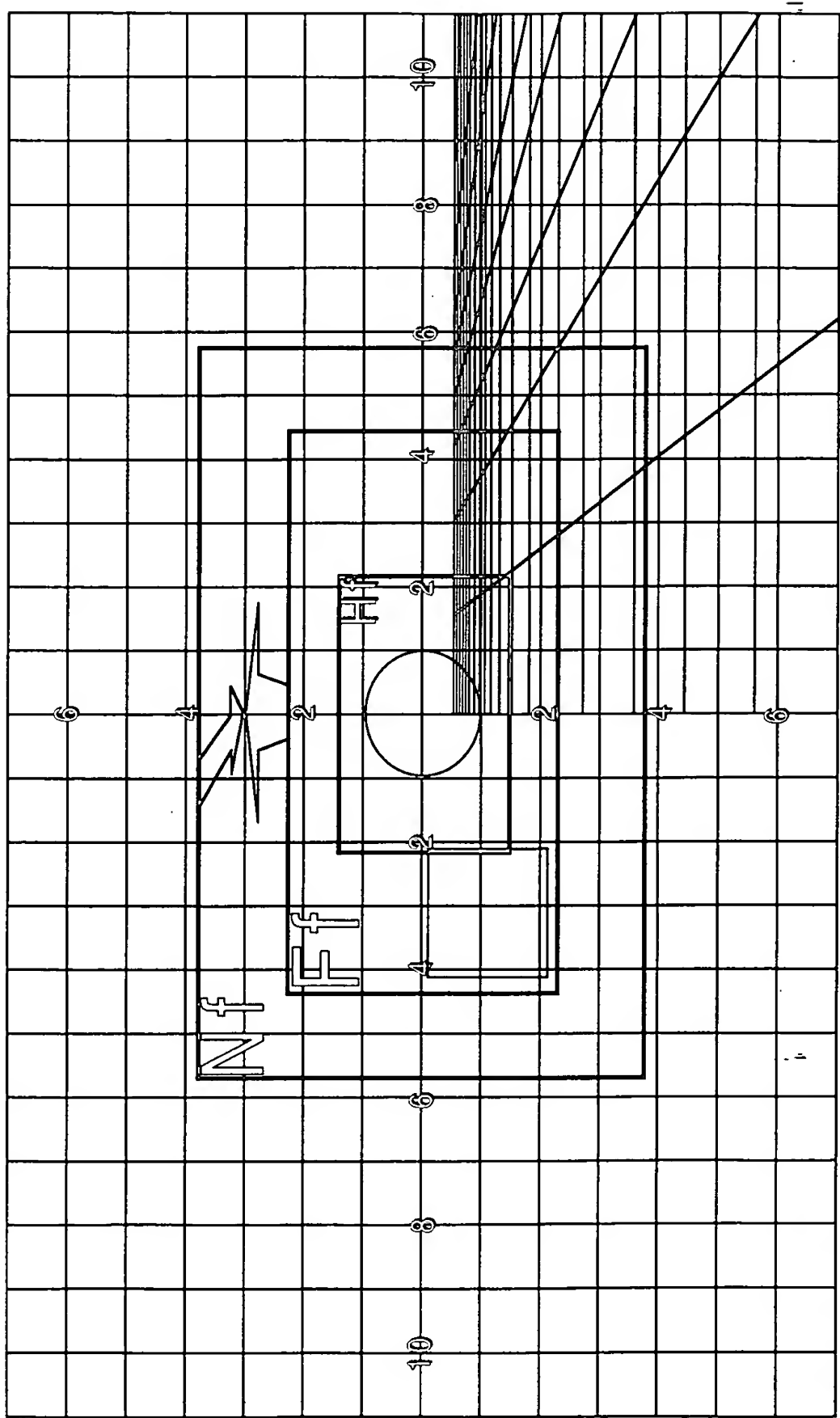


FIG. 14b